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GOLD AND SILVER COMMISSION.

Reports 1 & 2.

FIRST REPORT

OF THE

ROYAL COMMISSION

APPOINTED TO INQUIRE INTO THE

RECENT CHANGES IN THE RELATIVE VALUES
OF THE PRECIOUS METALS;

WITH MINUTES OF EVIDENCE AND APPENDICES.

Presented to both Houses of Parliament by Command of Her Majesty.



LONDON:

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BY EYRE AND SPOTTISWOODE,
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HODGES, FIGGIS, & Co., 104, GRAFTON STREET, DUBLIN.

1887.

[C.—5099.] Price 4s. 4d.

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(A)

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[illegible]

ROYAL COMMISSIONS.

I.

VICTORIA R.

Victoria, by the Grace of God of the United Kingdom of Great Britain and Ireland Queen, Defender of the Faith.

To Our right trusty and well-beloved Councillor Arthur James Balfour, Our Secretary for Scotland; Our right trusty and well-beloved Councillor Joseph Chamberlain; Our trusty and well-beloved Charles William Fremantle, Esquire, Companion of Our Most Honourable Order of the Bath (commonly called the Honourable Charles William Fremantle); Our trusty and well-beloved Sir John Lubbock, Baronet; Our trusty and well-beloved Sir Thomas Henry Farrer, Baronet; Our trusty and well-beloved James Richard Bullen Smith, Esquire, Companion of Our Most Exalted Order of the Star of India; Our trusty and well-beloved David Miller Barbour, Esquire; Our trusty and well-beloved John William Birch, Esquire; Our trusty and well-beloved Lionel Louis Cohen, Esquire; Our trusty and well-beloved Leonard Henry Courtney, Esquire; and Our trusty and well-beloved William Henry Houldsworth, Esquire, greeting.

Whereas it has been represented unto Us that it is expedient that a Commission should forthwith issue to inquire into the recent changes in the relative values of the precious metals shown by the decrease in the gold price of silver.

Now know ye, that We, reposing great trust and confidence in your knowledge and ability, do by these Presents authorise and appoint you the said Arthur James Balfour; Joseph Chamberlain; Charles William Fremantle (commonly called the Honourable Charles William Fremantle); Sir John Lubbock; Sir Thomas Henry Farrer; James Richard Bullen Smith; David Miller Barbour; John William Birch; Lionel Louis Cohen; Leonard Henry Courtney; and William Henry Houldsworth to be Our Commissioners for the purposes of the said inquiry.

And We do hereby enjoin you, or any five or more of you, to investigate the causes of the said recent changes in the relative values of the precious metals, and especially to inquire whether the said changes are due—

- (1.) To the depreciation of silver; or
- (2.) To the appreciation of gold; or
- (3.) To both these causes.

If you should find the said changes to be due to the depreciation of silver, you will then inquire whether such depreciation arises from increase of supply or diminution of demand, or from both, and you will endeavour to ascertain the proportions in which these different causes have operated.

If you should find the changes to be due to the appreciation of gold, you will inquire whether the appreciation arises from the diminution of supply or from increase of demand, or from both, and you will endeavour to ascertain the proportions in which these different causes have operated.

Having regard to these different causes and their respective effects, you will next inquire what has been the bearing of the changes in the value of the precious metals on the following matters of practical business:—

I. India:

(a.) Upon the remittances of the Government of India:

(1.) For payments on old or fixed contracts.

(2.) For payments on new or current contracts.

(b.) Upon the persons in India who have to make remittances home in gold.

(c.) Upon the producers, merchants, and taxpayers of India.

(d.) Upon merchants and manufacturers at home who trade with India.

II. *The United Kingdom :*

- (a.) Upon the trade of the United Kingdom with other silver-using countries.
- (b.) Upon the foreign trade of the United Kingdom generally.
- (c.) Upon the internal trade and industry of the United Kingdom.

If you should come to the conclusion that the aforesaid changes in the values of the precious metals are causing permanent or important evils or inconveniences to any of the interests above referred to, it will be your duty then to inquire whether it is possible to suggest any remedies within the power of the Legislature or the Government, by itself or in concert with other Powers, which would be effectual in removing or palliating the evils or inconveniences thus caused without injustice to other interests, and without causing other evils or inconveniences equally great.

Lastly, if you are of opinion that this is possible, you will state the precise form which such remedies should take, and the manner in which they should be applied.

And for the better effecting the purposes of this Our Commission, We do by these Presents give and grant unto you, or any five or more of you, full power to call before you such persons as you shall judge likely to afford you any information upon the subject of this Our Commission ; and also to call for, have access to, and examine all such books, documents, registers, and records as may afford you the fullest information on the subject ; and to inquire of and concerning the premises by all other lawful ways and means whatsoever.

And We do further by these Presents authorise and empower you, or any five or more of you, to visit and personally inspect such places in Our United Kingdom as you may deem expedient for the more effectual carrying out of the purposes aforesaid.

And We do by these Presents will and ordain that this Our Commission shall continue in full force and virtue, and that you, Our said Commissioners, or any five or more of you, may from time to time proceed in the execution thereof, and of every matter and thing therein contained, although the same be not continued from time to time by adjournment.

And We do further ordain that you, or any five or more of you, have liberty to report your proceedings under this Our Commission from time to time, if you shall judge it expedient so to do.

And Our further will and pleasure is that you do, with as little delay as possible, report to Us, under your hands and seals, or under the hands and seals of any five or more of you, your opinion upon the several matters herein submitted for your consideration.

And for the purpose of aiding you in such matters, We hereby appoint Our trusty and well-beloved George Herbert Murray, Esquire, to be Secretary to this Our Commission.

Given at Our Court at St. James's, the Twentieth day of September one thousand eight hundred and eighty-six, in the Fiftieth year of Our Reign.

By Her Majesty's Command.

HENRY MATTHEWS.

II.

VICTORIA R.

Victoria, by the Grace of God of the United Kingdom of Great Britain and Ireland Queen, Defender of the Faith.

To Our right trusty and well-beloved Councillor Farrer, Baron Herschell; Our right trusty and well-beloved Councillor Joseph Chamberlain; Our right trusty and well-beloved Councillor Sir Louis Mallet, Knight, Companion of Our Most Honourable Order of the Bath; Our right trusty and well-beloved Councillor Arthur James Balfour; Our right trusty and well-beloved Councillor Henry Chaplin; Our trusty and well-beloved Charles William Fremantle, Esquire (commonly called the Honourable Charles William Fremantle), Companion of Our Most Honourable Order of the Bath; Our trusty and well-beloved Sir John Lubbock, Baronet; Our trusty and well-beloved Sir Thomas Henry Farrer, Baronet; Our trusty and well-beloved David Miller Barbour, Esquire, Companion of Our Most Exalted Order of the Star of India; Our trusty and well-beloved John William Birch, Esquire; Our trusty and well-beloved Lionel Louis Cohen, Esquire; Our trusty and well-beloved Leonard Henry Courtney, Esquire; and Our trusty and well-beloved William Henry Houldsworth, Esquire, greeting.

Whereas We did, by Warrant under Our Royal Sign Manual, bearing date the twentieth day of September one thousand eight hundred and eighty-six, authorise and appoint Our right trusty and well-beloved Councillor Arthur James Balfour, Our then Secretary for Scotland, together with the several gentlemen therein mentioned, or any five or more of them, to be Our Commissioners to inquire into the recent changes in the relative values of the precious metals shown by the decrease in the gold price of silver.

Now know ye, that We have revoked and determined, and do by these presents revoke and determine, the said Warrant, and every matter and thing therein contained.

And whereas We have deemed it expedient that a new Commission should issue for the purposes specified in such Warrant of the twentieth day of September one thousand eight hundred and eighty-six.

Further know ye, that We, reposing great trust and confidence in your ability and discretion, have appointed, and do by these Presents nominate, constitute, and appoint, you the said Farrer, Baron Herschell; Joseph Chamberlain; Sir Louis Mallet; Arthur James Balfour; Henry Chaplin; Charles William Fremantle (commonly called the Honourable Charles William Fremantle); Sir John Lubbock; Sir Thomas Henry Farrer; David Miller Barbour; John William Birch; Lionel Louis Cohen; Leonard Henry Courtney; and William Henry Houldsworth to be Our Commissioners for the purposes of the said inquiry.

And We do hereby enjoin you, or any five or more of you, to investigate the causes of the said recent changes in the relative values of the precious metals, and especially to inquire whether the said changes are due—

- (1.) To the depreciation of silver; or
- (2.) To the appreciation of gold; or
- (3.) To both these causes.

If you should find the said changes to be due to the depreciation of silver, you will then inquire whether such depreciation arises from increase of supply or diminution of demand, or from both, and you will endeavour to ascertain the proportions in which these different causes have operated.

If you should find the changes to be due to the appreciation of gold, you will inquire whether the appreciation arises from the diminution of supply or from increase of demand, or from both, and you will endeavour to ascertain the proportions in which these different causes have operated.

Having regard to these different causes and their respective effects, you will next inquire what has been the bearing of the changes in the value of the precious metals on the following matters of practical business:—

I. *India* :

(a.) Upon the remittances of the Government of India :

(1.) For payments on old or fixed contracts.

(2.) For payments on new or current contracts.

(b.) Upon the persons in India who have to make remittances home in gold.

(c.) Upon the producers, merchants, and taxpayers of India.

(d.) Upon merchants and manufacturers at home who trade with India.

II. *The United Kingdom* :

(a.) Upon the trade of the United Kingdom with other silver-using countries.

(b.) Upon the foreign trade of the United Kingdom generally.

(c.) Upon the internal trade and industry of the United Kingdom.

If you should come to the conclusion that the aforesaid changes in the values of the precious metals are causing permanent or important evils or inconveniences to any of the interests above referred to, it will be your duty then to inquire whether it is possible to suggest any remedies within the power of the Legislature or the Government, by itself or in concert with other Powers, which would be effectual in removing or palliating the evils or inconveniences thus caused without injustice to other interests, and without causing other evils or inconveniences equally great.

Lastly, if you are of opinion that this is possible, you will state the precise form which such remedies should take, and the manner in which they should be applied.

And for the better effecting the purposes of this Our Commission, We do by these Presents give and grant unto you, or any five or more of you, full power to call before you such persons as you shall judge likely to afford you any information upon the subject of this Our Commission ; and also to call for, have access to, and examine all such books, documents, registers, and records as may afford you the fullest information on the subject ; and to inquire of and concerning the premises by all other lawful ways and means whatsoever.

And We do further by these Presents authorise and empower you, or any five or more of you, to visit and personally inspect such places in Our United Kingdom as you may deem expedient for the more effectual carrying out of the purposes aforesaid.

And We do by these Presents will and ordain that this Our Commission shall continue in full force and virtue, and that you, Our said Commissioners, or any five or more of you, may from time to time proceed in the execution thereof, and of every matter and thing therein contained, although the same be not continued from time to time by adjournment.

And We do further ordain that you, or any five or more of you, have liberty to report your proceedings under this Our Commission from time to time, if you shall judge it expedient so to do.

And Our further will and pleasure is that you do, with as little delay as possible, report to Us, under your hands and seals, or under the hands and seals of any five or more of you, your opinion upon the several matters herein submitted for your consideration.

And for the purpose of aiding you in such matters, We hereby appoint Our trusty and well-beloved George Herbert Murray, Esquire, to be Secretary to this Our Commission.

Given at Our Court at St. James's, the Sixth day of May one thousand eight hundred and eighty-seven, in the Fiftieth year of Our Reign.

By Her Majesty's Command.

HENRY MATTHEWS.

GOLD AND SILVER COMMISSION.

FIRST REPORT.

TO THE QUEEN'S MOST EXCELLENT MAJESTY.

MAY IT PLEASE YOUR MAJESTY,

WE, the undersigned Commissioners appointed to inquire into the recent changes in the relative values of the precious metals, desire humbly to submit to Your Majesty the following Report of the steps which have been taken up to the present date to prosecute the inquiry entrusted to us.

Twenty-four meetings have been held, and twenty witnesses have been examined, notes of whose evidence, with other information relating thereto, are appended.

Following the line of inquiry indicated in the terms of our reference, the investigation was commenced by obtaining such information as was available with regard to the supply of, and the demand for, the precious metals.

The Commission then proceeded to consider how far the conclusions which might be drawn from these statistics were supported by other indirect evidence, such as the prices of commodities.

These two branches of the inquiry occupy the first seven days of the accompanying notes of evidence.

Representations were next invited from those whose interests were said to have been adversely affected by the recent changes in the relative values of the precious metals, or who desired to suggest remedies for the evils alleged to exist.

Their evidence falls under the following heads:—

- (a.) The position of the Government and people of India;
- (b.) The interests of merchants trading with India, China, and other silver-using countries;
- (c.) The effect upon the general trade and industry of the United Kingdom; and
- (d.) The remedies which have been proposed.

We have not completed our inquiry into any of the matters specified above; and it will be observed that a large portion of the evidence already taken represents opinion on one side only of the questions at issue.

This is more particularly the case with regard to those witnesses who have appeared before us to suggest remedies.

We shall endeavour at an early date to obtain the evidence of competent witnesses who take an opposite view; and we may find it necessary to take further evidence on some or all of the points above mentioned. But we have, nevertheless, thought it desirable to submit this preliminary report of our proceedings so far as we have been able to carry them at present.

All which we humbly submit for Your Majesty's gracious consideration.

(Signed)

HERSCHELL.
J. CHAMBERLAIN.
LOUIS MALLET.
ARTHUR JAMES BALFOUR.
HENRY CHAPLIN.
C. W. FREMANTLE.
JOHN LUBBOCK.

D. BARBOUR.
J. W. BIRCH.
LIONEL L. COHEN.
LEONARD COURTNEY.
W. H. HOULDSWORTH.
T. H. FARRER.

GEO. H. MURRAY,
Secretary.

10th June 1887.

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MINUTES OF EVIDENCE

TAKEN BEFORE THE

ROYAL COMMISSION

ON

GOLD AND SILVER.

At 8, Richmond Terrace, Whitehall, London, S.W.

Friday, November 19th, 1886.

PRESENT :

THE RIGHT HON. A. J. BALFOUR, M.P., the CHAIRMAN, presiding.

MR. D. M. BARBOUR.

MR. J. W. BIRCH.

MR. LIONEL L. COHEN, M.P.

SIR T. H. FARRER, BART.

MR. C. W. FREMANTLE, C.B.

MR. W. H. HOULDSWORTH, M.P.

MR. J. R. BULLEN SMITH, C.S.I.

MR. GEO. H. MURRAY, *Secretary*.

MR. R. H. INGLIS PALGRAVE, F.R.S., examined.

Mr. R. H.
Inglis Pal-
grave, F.R.S.
19 Nov. 1886.

1. (*Chairman*.) The Commission propose to ask you some questions with regard to that part of the memorandum which you laid before the Commission on Trade which relates to the supply of the precious metals. Could you inform us of the circumstances under which you prepared the memorandum, and more especially that portion of the memorandum?—The memorandum was prepared at the request of a sub-committee of the Commission on Depression of Trade which was appointed to consider the currency question. They recommended to the Commission that I should prepare this memorandum, and it was formally accepted and endorsed by the Commission and by Lord Iddesleigh, the Chairman of it.

2. Could you tell us the steps you took to prepare it?—A considerable part of the information contained in it is derived from a recent work by Dr. Soetbeer. I received a great deal of assistance from Mr. Fremantle and others for the portion which refers to England; from the India Office; from M. Leon Say and M. de Foville for the portion referring to France. The names of those from whom the information is derived are mentioned in the memorandum.

3. Then perhaps you could explain more particularly to the Commission the ground which it is intended to cover, and the lines of inquiry which in your opinion it opens out?—It was intended to be a ground work to show the lines upon which such an inquiry should be founded. It was not intended to be a complete inquiry in itself, but simply to point out the lines upon which the inquiry should be made.

4. Then could you tell us to what lines of inquiry you think it specially points for further investigation?—Particularly as to the effect on prices of the alteration in the use of the gold standard throughout Europe and in America. I think that is the next point for inquiry.

5. You mean that having determined the supply of the precious metals, the next point we shall have to determine will be the effect on prices?—The first point I considered I had to determine was whether there had been a drop in prices or not, and for that purpose I arranged various index numbers. Those index numbers showed that there had been a drop in prices both in Europe and in America. A further question is how far that drop in prices is attributable to the alteration in the use of the gold standard, and how far it is referable to other causes. In my opinion it is only a comparatively small part of the drop in prices which is attributable to the appreciation of the standard.

6. Without going into the question of prices, which we thought we would defer till a later stage of our inquiry, could you explain a passage in sub-section 7, at the bottom of page 323. It would appear from that subsection 7 that after the year 1640 the amount of gold and silver in existence largely increased, but that that increase was only adequate and not more than adequate to maintain prices at their former level?—Yes. That fact is shown by the price of wheat remaining nearly uniform, on an average, throughout the 17th and 18th centuries. Your question is now, how the equilibrium came to be altered?

7. No, before getting to that, is it not an interesting fact that while the supply of the precious metals largely increased during that time, prices notwithstanding were not affected. You would consider that that is a fact proved with reference to the price of wheat more especially, but also with reference to other commodities?—I cannot speak of other commodities.

8. Would you consider the price of wheat a fairly sufficient indication of the equilibrium in prices?—Yes, I think so at that period.

Mr. R. H.
Inglis Pal-
grave, F.R.S.

19 Nov. 1886.

9. How is the fact accounted for that in spite of the increase of precious metals, the prices did not rise?—That is partly to be accounted for, I presume, owing to the annual loss by abrasion, the export of gold and silver, chiefly silver, to India, the consumption of gold and silver in use and ornament.

10. But is it not your opinion that the head 3 mentioned in that subsection is probably the most important one to be borne in mind in explaining the fact that while the currency increased prices did not alter?—I think it was the opinion of Mr. Newmarch, who wrote the paragraph to which you refer, that at that period the consumption of the precious metals nearly balanced the production of them, which would account for the circumstance.

11. Then, in your opinion, the head 3 in that subsection was not very material in maintaining the equilibrium?—I think head 3 mainly refers to the supply of silver.

12. It does not refer to silver alone, I think?—It mainly refers to silver. The supply of gold at that time, I think, was not very large. I am now speaking from memory, but there was no rise of prices till the year 1570.

13. But I am talking of the period subsequent to 1640?—The statement is that by 1640 there had been a rise of prices of 200 per cent., and that the increase in gold and silver in that time, as compared with the stock known to be in existence when America was discovered, was about 600 per cent.

14. (Mr. Cohen.) You would not consider now that wheat is a sufficient indication of the equilibrium in prices?—I think the price of wheat would be, taken over a series of years, as fair an indication of the purchasing power of the standard of value in England, and also to a great extent in France, as can be obtained from observing the price of a single article. Of course, the effect of the Customs duties on prices must also be considered.

15. (Chairman.) Taking those two paragraphs of your memorandum together, (namely, subsections 6 and 7 at the foot of page 323), you will observe that we have the fact that the average annual supply of gold and silver was after 1640 twice as great as the average annual supply before 1640, but that, nevertheless, while before 1640 prices rose rapidly, after 1640, in spite of this increased supply, prices remained steady for upwards of a century. That is the fact that is brought out by those two paragraphs taken together, and what I want you to give to the Commission is your opinion as to the inference, if any, which may be drawn from them?—The inference which I draw from them is this, that you cannot clearly connect in an absolute proportion an increase of the stock of the precious metals with an alteration in prices. As I mentioned, the increase in gold and silver had been 600 per cent., but the rise in prices had been only 200. The whole state of commerce and of the world was so different at that period from what it is now, that I do not think that it is any use trying to gather information from what occurred then, which would be of service at the present time.

16. But as prices owing chiefly to the increase of commerce and of population, only maintained their equilibrium in the face of an enormous augmentation of the supply of metals for more than a century, is not the inference that at any other period, when commerce and population are increasing, unless the supply of precious metals undergoes great augmentation, you will have a fall in prices. I do not know if I have put that clearly, but that is an inference that might be drawn from those two paragraphs?—Yes, it might be drawn. At the same time you have to remember that the credit system and the use of book credits did not exist at that period. When I say did not exist I mean that they existed only in a very modified form at that period, and therefore the increase in the stock of the precious metals would have a totally different effect upon prices from what it would have at a time when such a system was in full operation.

17. But my question is, must not the precious metals go on rapidly increasing, judging from those instances, if you are to keep prices in equilibrium?—Yes, but then there are a great many other things that have to come into consideration, such as the rapidity of the turnover of the money used.

18. Do you think it possible that the machinery of exchange may be so far improved in the future as to make up the deficiency? Could you give a conjecture as to the possibility of making up any deficiency in the supply of precious metals from mines?—I am always averse to attempting to prophesy in such matters. I could imagine such a thing possible.

19. (Mr. Cohen.) One question in connexion with the export of gold to India. I should like to ask whether you are aware of any of your figures in that respect having been challenged, as to the absorption of gold in India?—I am not aware of it. They were the Indian official figures.

20. (Mr. Birch.) With regard to the former question, I infer that you think the period named here can bear no comparison with what is happening in the present day?—You can scarcely make any comparison; the general circumstances of trade and life are so different now from what they were then.

21. (Chairman.) I come now to table 5, production of the precious metals. The table you have put in here is, I think, one compiled by Dr. Soetbeer; is not that so?—Yes.

22. What other estimates of the production of the precious metals besides Dr. Soetbeer's are there?—There are a great many. There is one prepared by Sir Hector Hay. Between that and Dr. Soetbeer's there are various differences. Dr. Soetbeer explains this by saying that Sir Hector Hay has under-estimated the production in South America and other countries, but as I understand the Commission will invite Sir Hector Hay to appear before them, he will doubtless explain to them upon what basis he formed his estimate.

23. Can you explain the principles on which Dr. Soetbeer and Sir Hector Hay have respectively based their estimates?—I understand Dr. Soetbeer to have availed himself of the official estimates that are found in various countries.

24. (Mr. Cohen.) I understood that there are no such data in any countries as to actual production; that they can only measure it by the export from those countries and the amount used in those countries?—I have no doubt that these estimates are all more or less matters of conjecture, so far as they refer to production and also to consumption, except for the mere statistics of coinage, and not more than that.

25. (Chairman.) But estimates may be a matter of conjecture and yet the limit of error may be comparatively so slight that conclusions may be legitimately founded upon the estimates. Can you tell us whether you think that Dr. Soetbeer's estimates are of that kind?—I think Dr. Soetbeer's estimates of the production of the precious metals and of the use of the precious metals for coinage purposes may be depended on as far as such estimates can be. His estimate of the gold available for the supply of coinage has appeared to me to rest more on a conjectural basis than the estimates of the quantities produced and employed for coinage. Take Dr. Soetbeer's estimate of the supply available for coinage during recent quinquennial periods. He estimates the supply for the years from 1851 to 1860 to be 22,780,000*l.*; that is annually from 1861 to 1870, 14,060,000*l.*; from 1871 to 1880, 10,255,000*l.*; from 1881 to 1884, 4,050,000*l.* These are the annual averages of the available supply given by Dr. Soetbeer when the weight of gold which he mentions is reduced into sterling value. Considering that those figures were very small, I applied to Mr. Stewart Pixley, who furnished me with an estimate which, when it is reduced to the same form for quinquennial periods, which in Mr. Pixley's case run from the year 1852 onwards, gives for the first period, 1852 to 1860, 27,600,000*l.*; for the second, 1861 to 1870, 17,600,000*l.*; for the third, 1871 to 1880, 18,700,000*l.* and for the last, 1881 to 1885, 11,200,000*l.*

26. Has Mr. Pixley followed a different method of investigation from that adopted by Dr. Soetbeer?—As far as I understand Mr. Pixley he followed an identical method; I mean, he had allowed for the same causes.

27. Does Mr. Pixley give any explanation of the difference of the conclusion which he has arrived at from that arrived at by Dr. Soetbeer?—No, I have not obtained any explanation from him.

28. So that we have no means of determining or conjecturing which is the most trustworthy investigation?—Well, my own opinion is that Mr. Pixley's is more likely to be nearer the truth.

29. Perhaps you will put in Mr. Pixley's?—I will put in both the figures and an estimate of production and the exports to India in the same form.

*Estimate of Production of Gold, Dr. Soetbeer.
Yearly average.*

Years.		£
1851-60	-	28,650,000
1861-70	-	26,600,000
1871-80	-	23,000,000
1881-84	-	19,500,000

Exports to India. Yearly average.

Years.		£
1851-60	-	2,140,000
1861-70	-	5,900,000
1871-80	-	1,470,000
1881-84	-	4,700,000

*Gold available for the supply of Coin. Estimates of
yearly average, Dr. Soetbeer.*

Years.		£
1857-60	-	22,780,000
1861-70	-	14,060,000
1871-80	-	10,255,000
1881-84	-	4,050,000

*Gold available for the supply of Coin. Estimates of
yearly average, Mr. Stewart Pixley.*

Years.		£
1852-60	-	27,600,000
1861-70	-	17,600,000
1871-80	-	18,700,000
1881-85	-	11,200,000

30. (*Chairman.*) Have you any general conclusions other than those contained in your memorandum which you draw from the information available with regard to the production of the two metals?—I do not think there is anything further. The production of gold has distinctively been less, and of silver it has been more.

31. Then what interpretation do you place upon the fact which I think is brought out upon page 326, that while the stock of silver is less than it was in 1850, the price is lower, the consumption is in excess of the recorded supply, and the production greater?—I suppose by consumption you mean the use for coinage.

32. The use for coinage; but that of course makes the fact even more remarkable, because there are other modes of consumption?—This statement of mine compares the coinage as against the production without making any deduction for use in arts and manufactures.

33. But if you made an allowance for use in arts and manufactures the excess of consumption over supply would be even greater than it is?—No question.

34. Then the fact remains as remarkable, or even more remarkable than as stated by you in your memorandum?—After receiving those two estimates of Mr. Pixley and Dr. Soetbeer, I thought I might leave

the use of the precious metals for arts and manufactures out of account, the basis being clearly so difficult to obtain in a true form. The interpretation I place upon the matter is this, that the reduction in the price of silver in London is mainly owing to the action of Germany and the Latin Union and America so far as they have demonetized silver.

35. Through the familiar fact that certain countries which formerly used silver, now use gold, or use gold more than they used to?—They ceased to use silver, or altered their use of it.

36. How do you account for the fact that the stock of silver in existence appears to be less than in 1850?—That is another table, in which the flow to the East is allowed for, the wear and tear, and also the consumption in arts and manufactures.

37. Perhaps you would tell us whether any estimate can be made of the re-mintage of worn coin. The very paradoxical fact that the production of silver is far short of the coinage of silver is accounted for, you state, on page 327 chiefly by the effects of re-mintage. Is it in your power to give us any details of re-mintage?—A great deal of the information I received on that point was supplied me by Mr. Fremantle, who was so good as to give me a good deal of information which is embodied in my memorandum. That refers particularly to the coinage at the English mints, and I understand from another source that between 1871 and 1880 there was about 42,000,000 of gold coined at our mints, of which over 10,000,000 was in United States gold coin melted down and re-minted here. That is one fourth, if that statement is correct.

38. So that one fourth of the whole coinage in England is re-coinage of American gold?—That is the statement I have received for the period referred to. Wishing to push the inquiry further, I asked Professor Roberts-Austen, who is the chemist to the Mint, and he informed me that "The analysis of a melted mass of gold would certainly enable a metallurgist to say whether it was probably melted native gold, refined gold, or coin. Ingots, however, in the English market, are, I should say, almost always refined gold, except in cases in which the standard of the mass would at once indicate that they were from melted coin." I think that by inquiry at the Mint you will be able to get more information upon that point.

39. But you would regard it as vital to our inquiry, as to the relation between the demand for precious metals in the form of coin and the supply from the mines, to discover how much of the actual coinage is re-coinage?—No question. I endeavoured to ascertain that, but in a very imperfect manner.

40. Supposing we are able to form some tolerably accurate estimate of the amount of re-coinage in the United Kingdom, could we take that as giving us any guide to the amount of re-coinage in the other mints of the world?—I should not think so at all; the proportion might be very different in other countries.

41. So that a similar investigation would have to take place in every other country, in order to form a reliable estimate?—If you were to address inquiries to the French, German, and American Mints, you would get a great many facts that would be of much service to your enquiry. Mr. Fremantle was so good as to supply me with some valuable information respecting the American Mint, which I employed at page 318 of my memorandum.

42. But you have no information yourself, either from the Indian Mint or from any other mint, which will supplement the information given in this memorandum?—I have no figures, except those with which the India Office supplied me, but I know that a great part of their coinage has been re-coinage, at least I have been told so at the India Office.

43. The same general principles of investigation will apply to the silver currency as to the gold, I suppose?—I think so.

44. In England the question of re-coinage of silver is of less importance, owing to the fact that it is a

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token coinage?—Yes, but I believe that a great deal of the coinage of silver also is a re-coinage in England.

45. In spite of the fact that it is a token coinage?—Yes, I believe so.

46. But while in England the matter of the re-coinage of silver is comparatively unimportant, it is of the greatest importance in countries where silver coinage is legal tender to any amount, or where silver is the sole coinage in common use?—Silver is legal tender to any amount in the United States of America, except where stipulated otherwise in the contract, though not standard of value.

47. In America is there much re-coinage of silver?—The re-coinage in India and of the Mexican dollars no doubt is very large indeed, and I think, especially in the case of the latter, it is almost impossible to ascertain how far it extends.

48. What amount of reliance do you think can be placed on the estimates of the stocks given in Table 6?—I think they must be used with very great caution.

49. You mean that the data on which they are founded are so conjectural?—They are so much the personal opinion of the individual who has prepared them.

50. Do you know of other estimates varying largely from those which have been made by other investigators?—I gave you the instance between Mr. Pixley's and Dr. Soetbeer's.

51. But there is no other estimate that you are aware of besides Mr. Pixley's and Dr. Soetbeer's?—I was endeavouring to have one made which I may be able to lay before the Commission.

52. Have you any information with regard to the amount of coin which is, firstly, hoarded; secondly, used as current coin, and, thirdly, kept in bankers' reserves, under which three heads I presume all coin might be accounted for?—I think there is very little coin hoarded in the United Kingdom at the present time. The amount of the current gold has been estimated at about 100,000,000*l*.

53. Current gold as distinguished from bankers' reserves?—No, the gold coin in existence in the kingdom has been estimated at from about 95,000,000*l*. to 105,000,000*l*. The ordinary estimate is about, 100,000,000*l*. in the United Kingdom. With regard to the reserves of gold held by bankers, an inquiry was made about these by the bankers in the year 1883. The figures appear in the June number of the Journal of the Institute of Bankers, 1883, and are as follows:—

“THE GOLD COINAGE.

“The Coinage Committee* have made the following report, which has been adopted and approved by the Council:—

“Report of the Coinage Committee to the Council of the Institute of Bankers.

“Your committee have the honour to report that at a meeting held on 16th March it was agreed that it would be highly desirable to inquire what amount of gold was held by the banks of the United Kingdom collectively, with a view of ascertaining how far any action taken towards placing the gold coinage in a more satisfactory condition could be supported by the Bankers in a body. It was resolved to invite all banks to make a return of the gold coin held by them and their branches on the evening of Monday, 30th April, and, for the reasons stated below, your committee have no reason to think that this date was unsuitable for the object in view.

“In reply to circulars so sent out, answers were furnished by a considerable majority in number, and a still larger proportion in importance, of banks

throughout the United Kingdom. The result is shown in the following table:—

—	Returns.	No Returns.	Total sent.
London Private Banks - - -	33	—	33
Bank of England - - - -	1	—	1
London Joint Stock Banks and Branches	16	—	16
Country Private Banks and Branches -	138	22	160
Country Joint Stock Banks and Branches - - - -	87	4	91
Isle of Man Banks and Irish Private Banks - - - -	3	2	5
Scotch Banks and Branches - -	10	—	10
Irish Banks and Branches - -	9	—	9
	297	28	325
Channel Islands Banks - - -	2	4	6
	299	32	331

“It may be remarked that among the banks from which no return was received some might fairly have been excluded from the list on the ground that though their names appear in the ‘Banking Almanac,’ their business was hardly that of bankers, in the usually accepted sense of the word; others retaining their name for the sake of their circulation only, or being in course of amalgamation with other banks. In the case of the Channel Islands, French rather than English gold is the usual medium of exchange.

“Your committee have to express their appreciation of the readiness with which information was furnished to them on a point as to which hitherto considerable reticence has been noticed, and consider that they have best justified the confidence which has been reposed in them by destroying all the individual returns with which they have been favoured.

“The gold held by the 299 banks from which returns were received, including the Bank of England, amounted to 22,010,008*l*. 10*s*., which your committee have reason to believe to be a minimum amount. A considerable number of returns were accompanied by the remark that the stock of gold returned was very much below the average, and that a return made on a Thursday instead of a Monday, or made at a different time of year, would have shown a much larger total. Your committee are, however, of opinion that the object of their inquiry was to ascertain the minimum rather than the average amount of gold held by banks collectively, and they are satisfied that while the figures which they submit do not adequately show the extent to which bankers are burdened by the existing condition of the gold coinage, they do represent the extent to which bankers could co-operate in any scheme for restoring its condition.

“It may be mentioned that in one of the few instances in which hesitation was shown in making a return to your committee, the objection was based, not on the small quantity of gold held, but because the amount of dead weight held in this shape was so large.

“Making allowance for the banks from which no return was made, it is probable that the gold coin held by banks on the 30th April last was 22,150,000*l*., this being, as above stated, a minimum amount; making allowance for the circumstances which have been referred to, the average holding would probably be 25,000,000*l*., made up as follows:—

	£
Bank of England -	11,000,000
English banks -	8,100,000
Scotch -	3,100,000
Irish -	2,800,000
	<u>25,000,000</u>

* The Committee was appointed at a meeting of the Council of the Institute held in February 1883. The course adopted by them in order to obtain the information required will be found in Vol. IV. of the Journal of the Institute of Bankers, p. 263.

"Your committee would recommend that a letter be addressed by the President, in the name of the Council, to the Lords of Her Majesty's Treasury, with a view of ascertaining whether the Government is prepared to take action, either separately or in combination with the Bankers as a body, in order to restore the condition of the gold coinage, and to maintain it in a satisfactory condition in the future.

JOS. HERBERT TRITTON, *Chairman*.

HENRY FARNCOMBE BILLINGHURST.

WILLIAM HOWARD.

JOHN LUBBOCK.

JOHN BIDDULPH MARTIN.

ROBERT HARRY INGLIS PALGRAVE.

RICHARD BLANEY WADE.

"June 6th, 1883.

"In pursuance of the recommendation contained in the foregoing report, the following letter, signed by the President, has been transmitted to the Lords of Her Majesty's Treasury:—

"Institute of Bankers,
11 & 12, Clement's Lane, E.C.,

19th June 1883.

"MY LORDS,

"On behalf of the Council of the Institute of Bankers I beg respectfully to invite your attention to the condition of the gold coinage of the Realm, the deterioration of which has of late years increased in a marked degree, to the great inconvenience of the public in general, and to the serious anxiety of the Bankers as a body.

"I take the liberty to refer to the Report of the Royal Commission on International Coinage, 1868, who reported that 'a gradual re-coinage will soon become a matter of necessity under any circumstances,' and also to the Report of the Select Committee on London City Lands (Thames Embankment) Bill, 1881. Ample evidence of the depreciated condition of the gold coinage was given on each of these occasions. I may also refer to the Annual Reports of the Deputy-master of the Mint, who has more than once called attention to this matter.

"The extent of this depreciation formed the subject of an inquiry by the late Professor Stanley Jevons in 1868, and has been treated on two occasions in papers read before this Institute by Mr. John B. Martin in 1882, and by Mr. R. H. Inglis Palgrave during the present year. Consequent on the reading of the latter paper, a Coinage Committee was appointed by this Institute, which has reported the result of their inquiry into the amount of gold coin held by the Bankers of the United Kingdom as a body.

I have the honour to enclose a copy of their Report to the Council of this Institute, from which it would appear that of an estimated gold circulation of one hundred millions the banks have an aggregate minimum holding of more than one fifth, and a probable average holding of one-fourth part: of this amount, which may be roughly stated as 25,000,000*l.*, it is probable that not more than 5,000,000*l.* or at the utmost 6,000,000*l.* is in light coin.

"The rapidity with which the gold circulation changes hands and passes through the hands of the banks is shown by the fact, that whereas the total amount of gold coin minted from 1817 (when sovereigns were first coined) to 1880 inclusive was 308,060,000*l.*, there passed through the scales of the Bank of England in the twenty-one years 1860–80, 395,000,000*l.*, of which 332,000,000*l.* was paid in by the Bankers; it is therefore evident that the banks are in a position to co-operate very effectually in any measures that may be taken in regard to the gold coinage.

"I do not venture to trouble your Lordships with a detailed statement of the arguments by which this Institute supports its opinion that the restoration of the gold coinage to a satisfactory state is an end that it is beyond the power of the present Coinage Act to effect, and that the result of any attempt to enforce its provisions stringently would be that the loss would fall mainly, not on the Bankers, but on their customers, the public; while the general inconvenience to

business, and to the whole population, would be almost incalculable. But I take the liberty respectfully to ask whether your Lordships are in a position to acquaint me in some measure with the intentions of your department in this matter, or whether you would be willing to receive a deputation from the Council of this Institute, and so to afford them an opportunity of laying before your Lordships some of the points which appear to them most material.

In the hope that this matter will receive the favourable consideration which its importance deserves,

"I am, my Lords,

"Your Lordships' very obedient Servant,

"RICHARD B. MARTIN,

"President.

The Right Hon.

"The Lords Commissioners of Her Majesty's Treasury, Whitehall."

The result of the inquiry was this, that at that time the Bank of England held 11,000,000*l.* in gold coin; it was estimated that the English banks held 8,100,000*l.*, the Scotch banks 3,100,000*l.*, and the Irish 2,800,000*l.* That is about 25,000,000*l.*, or one fourth of the total stock. That was an investigation made by a bankers' committee on which I served, whose report I have given in. I have reason to believe that the amount shown to be held was rather below the ordinary average, owing to the time of year and the day of the week at which the investigation was made. I think you may safely assume that about one fourth of the gold coin of the country is in the form of bankers' reserves, that is to say is, on an average, in the tills and reserves of the banks of the country.

54. (*Mr. Birch.*) What period of the year was it made in?—The 30th April 1883, which was a Monday.

55. (*Chairman.*) Have you any observations to make on the table you have put in with regard to the use of precious metals in arts and manufactures?—I am afraid I can give no further estimate. The amount is certainly very large, and it is used for purposes which you would at first sight hardly expect. I was speaking with a chemical manure manufacturer, Mr. R. Prentice, of Stowmarket, the other day, and he told me that he employed platinum stills for part of his business, and that when they required repair they were mended with gold. I cannot form any estimate of the quantity employed in different manufactures, except that the amount is certainly large; of this a great deal would be continually worked up again.

56. I suppose you would say that that table is at least as conjectural as any of the other tables you have put in?—I think so; more.

57. It depends more on the idiosyncrasy of the individual calculator?—I think so. It was the best I could find for the use of the Commission.

58. (*Mr. Barbour.*) Will you look at Table 5, page 324, where the total production of gold and silver is given, and the silver is taken at the old ratio of 15½ to 1?—Yes.

59. That of course gives an incorrect total?—At the same time it is the only method upon which you can make a statistical comparison, if you use value.

60. That may be; but if you reduced the silver to gold at the average actual ratio of the year instead of at the ratio of 1 to 15½ you would get a lower figure?—The absolute weights which correspond to that total will be found in the next page.

61. So I am aware; but if, for example, you take the quinquennial period 1876–80, the total production is 46,157,850*l.* and for 1883 it is 46,139,300*l.* That appears to be almost the same figure?—Yes.

62. But if you reduced the figure of the production of silver for 1883, to the gold standard by the average rate of the year, you would get a smaller figure?—No question.

63. And in the same way, if you employed the silver standard throughout (both for the quinquennial period 1876–80 and for 1883) you would get a larger figure?—I do not quite follow.

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64. What I mean is this: Convert the gold production into silver for 1876-80 at (say) Rs. 10 to the £?—Yes.

65. In this way you would get, roughly, 461,000,000 of rupees?—That includes the gold as well as the silver.

66. But then if you converted the figure of gold production for 1883 at the actual average rate of the year you would have to convert it at a different ratio, say 13 rupees to the £, and you would get a larger figure. From the point of view of the silver standard the value of the production of both metals is increased. If you use the silver standard throughout, the value of the production of both metals is increased?—I think that is hardly the way that the table reads. This is an estimate of the value at 5s. an ounce, and it is the only method by which you can make a comparison between one year and another.

67. Well, cannot you use the one standard throughout? Could not you convert the silver to gold at the ratio of the year?—I think it would be less intelligible to most persons. I am aware that in the last edition of his statements, Dr. Soetbeer has made all these alterations according to the value of the year, but that does not appear to me so useful a method for statistical purposes.

68. It is not a question of convenience, it is a question of accuracy. I admit it may not be so convenient for some purposes, but it would be more accurate to use the true gold standard throughout, or the true silver standard?—I think for statistical purposes it is better to adhere to one standard, though the figures may be artificial to that extent. A preferable method might be to work the figures out on both values, the assumed and the actual. I have done this in Table 12 of the imports and coinage of silver in India.

69. But the value of the production of the two metals in 1883 is not 46,139,300£?—That is not the value in the market, no doubt; it is the value at the estimated ratio.

70. In giving the figures of the coinage of silver I understand that you do not include the amounts coined at the mints in the Native States of India?—I was not able at the India Office to obtain them.

71. Nor could you include the coinage of Afghanistan?—I was not able to do so.

72. Silver is coined there, but the amount of the coinage is unknown?—I understood that there was a considerable coinage in those countries, but I was not able to obtain the figures of it.

73. No doubt, you have seen the report of the Select Committee of 1876 on silver, of which Mr. Goschen was Chairman?—Yes.

74. In that report it was said that it was possible, perhaps probable, that the reduced value of silver would lead to a falling off in the production?—Yes.

75. Well, the figures so far do not prove that that is the case. No figures that you have obtained show that there has been a falling off in the production of silver?—Perhaps that shows that it is undesirable to prophesy in these matters.

76. But the fact is as I have stated?—Yes.

77. And on the other hand, the increase in the relative value of gold has not led to an increase of production?—No, it does not appear to have done so, and that is a remarkable fact.

78. At p. 324 you say it would seem that the decreasing relative value of silver shown in Table 36 has tended to cause a diminished demand in India for the depreciated metal, and conversely an increased demand for gold. I should like to know the grounds for holding that there is an increased demand for gold, the appreciating metal?—I referred to the increased imports from Australia to India. Table 36 refers to the price of silver. The price of silver in London is given in that table. It is simply referred to as an indication of the altered price of silver. That is the reason for the reference to that table.

79. You are aware that the imports of gold into India some years ago were much larger than they

have been in recent years?—They have fluctuated very largely, but the average was larger for the years 1881-84 considerably than for 1871 to 1880.

80. But for the period preceding that, for the period before 1871, the imports of gold were larger?—Those include, I think, the period partly of the cotton famine, and therefore that appeared to me to be an exceptional circumstance which largely influenced these.

81. It was during the period from 1871 up to 1880 that the import of gold fell off?—Yes.

82. Are you aware that during that period there was more than one severe famine?—Yes, I was aware of that, but I refer to the last few years in particular.

83. You compared the last few years with the period from 1870 to 1880, and you drew the inference that the appreciation of gold was leading to a larger import?—To an increased demand. I was informed that an increased preference for gold for hoarding purposes had been shown in India.

84. What are the grounds for that, other than the figures of the import?—I was informed that it was the case.

85. But the reasons, going beyond mere statement that it was so?—I was informed so by persons on whose authority it appeared to me that I could rely. There were various shipments of gold from Australia to England, and a portion of the cargo was discharged at Bombay.

86. But you say that there is reason to believe that of late years the people of India have shown a preference for gold over silver, and that conclusion is based on the fact that the imports of gold from 1880 to 1885 were on the average larger than they have been from 1870 to 1880?—They were four times as large nearly.

87. Considerably larger. Then I ask you, are you aware that between 1870 and 1880 there were severe famines in India?—Yes, I was aware of that.

88. That would lead to a lesser demand for gold in two ways: first, the people would have less money to invest in gold; and, secondly, in the case of a very severe famine, I suppose those who had a hoard of gold would be forced to give up a portion of it, and it would supply that part of the country where the famine did not exist. That is what you would expect?—Yes.

89. So that one cannot say with any certainty that there has been shown a greater desire to hoard gold because gold is appreciated?—I have no doubt your knowledge of India is far more complete than mine. I had to rely on the information that I received in this country.

90. (*Mr. Cohen.*) There is one point that I have ascertained while you have been under examination, and that is that we have here, at page 386 of your paper, the total amount of re-coinage of silver in India, given as 24,000,000£ sterling?—Yes. I think that refers to the amount of coins received, but not to the amount of bars, possibly made out of coin.

91. That is the amount of re-coinage. But does not that qualify very much your statement as to the excess of silver coined in India. You have there a column, which is deducted in Table E., of the amount of old silver re-coined in India, but in your figures here at page 326 you have not deducted that, so that will make a very important difference, as showing over a certain period the amount of excess or deficiency in the quantity of silver used for consumption?—I do not think that, for the purpose of that estimate.

92. Statement E. you will find at the bottom there. That is not brought into your table?—No, because I thought it best to confine it to coinage merely.

93. Do you think you could work out that as deducted from the amount consumed? Do you think you could work out what came from old coins?—I think Mr. Fremantle would be able to assist the Commission on that point. The officers who test the bullion received would be the best judges.

94. As to the gold coinage in this country, we have it on page 318 that the amount re-coined was 14,955,165£. from 1872 to 1885 in London. The next question I

would ask you is this: You speak of the amount of gold that was said to be afloat in this country as from 95,000,000*l.* to 105,000,000*l.*, I think?—Yes.

95. Have you any information, going back over a number of years, which would show whether that had decreased or increased?—I think it has increased within the last 20 years.

96. Have you anything to bear that out. The common theory is that it has decreased very materially?—I think hardly so, as compared with 20 years since.

97. I have not any data on the subject, but I think that the common theory is that it has decreased some 25,000,000*l.* sterling within the last few years?—The best estimate was one made by Professor Jevons about 20 years ago, and all other estimates which I know of have been based upon that, and the method that he employed.

98. In the amount of gold that you state as being afloat in this country you include light gold?—Certainly.

99. Are you aware that it was stated in Parliament that the amount of light gold held by the different banks was 10,000,000*l.* sterling, and to that extent the scarcity of gold was intensified?—I should greatly doubt the light gold held by the banks being so large an amount as that, if you mean coin so light that it could not be put into circulation.

100. Do you think that would have any bearing upon the general question of the supposed appreciation of gold, the amount locked up in deficient coin in this country?—None whatever.

101. (*Sir T. Farrer.*) I wanted to ask a question with regard to one figure which I do not quite understand in column 10, page 323, namely, the coin existing, or supposed to exist, at the end of each period. It seems, from what comes afterwards, that that is the amount by which the existing coin had diminished. See Table 4, page 323?—This is a table which was prepared by Mr. Newmarch. It is an assumed amount of gold and silver coin in existence in the year 1829.

102. But then when I come to the memorandum by Mr. Palgrave, which follows, I find that this 67,000,000*l.* is not the amount existing, but the amount by which the existing coin had diminished in that period. There is something in the figures which I do not quite understand?—I put that memorandum in to make the matter clear. You will see that the export and the amount used and the loss by wear and tear is estimated at 170,000,000*l.* in all. The produce of the period is estimated at 103,000,000*l.*, and the amount existing in the form of coin was thus assumed to be less at the end of the period.

103. Thus, when you deduct 103,000,000*l.* from 170,000,000*l.*, you have 67,000,000*l.* left?—Yes.

104. And that is the net loss during the period?—Yes, no question.

105. But in the column 10 it appears to be the amount left in existence?—If you look in column 11 you will see the quantity of coin accumulated in existence stated, which you will observe, is 67,000,000*l.* less than the statement immediately above it.

106. Column 10 is supposed to be the quantity of coin existing at the end of each of those periods, that is, reckoning each period by itself, taking the production of the period by itself and the use by itself?—That is the balance, either more or less. It was considered that there was 67,000,000*l.* less at the end of that period than there was at the beginning of it.

107. Then the heading might be a little clearer?—It is a table which I employed and which I did not feel at liberty to alter as it was a quotation. I added a note to make the meaning more clear.

108. Well, now I wanted to ask you, now that we have got the statistics of production, do you know how those statistics are obtained?—Not further than is mentioned by Dr. Soetbeer and the other authorities cited.

109. Do you take them simply from the statisticians who have given them?—I took them on Dr. Soetbeer's

authority. I was not able, in the time at my disposal, to make an independent inquiry.

110. Do you know how he gets them? Is it from returns from the mines?—I believe they are based on official figures.

111. All we can take is the different methods of the different statisticians upon their authority?—Yes.

112. So it is upon their authority that we take the production?—Yes.

113. Well that is so far as the production is concerned. Next the exports from Europe. Those we get, I suppose, with more or less accuracy from official returns of exports or imports?—I would refer, I think, to a statement in Dr. Soetbeer's book in which he compares the movement of the precious metals between England and France as given in the English records and in the French records, and a very considerable difference is shown between them.

114. So that this is not a very accurate figure after all?—No, I have never felt that one could place very great reliance upon those figures.

115. (*Chairman.*) Are they more incorrect than any others relating to the subject that we have?—I have been informed that there is considerable doubt about them. I have always, for my own guidance, put far more confidence in the statements of the amounts held by the large banks in different countries than in any other statements respecting the stocks of the precious metals held in those countries.

116. (*Sir T. Farrer.*) Have you any certainty that our returns of imports and exports of bullion include all the bullion imported or exported?—I could only employ the official returns.

117. The next item is the quantity converted into articles of use and ornaments. That is very little more than a guess, I presume?—I should think so.

118. With regard, for instance, to silver used in electro-plating in this country, it is an absolute guess, is it not?—Yes; but the period under consideration is long before that method of manufacture was employed.

119. But I only take that as one item. I suppose we do not in the least know what is used in that form?—I think you could get at that particular information, probably, by applying to the principal manufacturers; but the use of silver is so large and in so many different forms that it is almost impossible to trace it.

120. Then the loss by wear of coins and casualties again must be very much of a guess, must it not?—No question.

121. Consequently, our statistics after all are very loose?—You remember Mr. Bagehot said about them that they were not worth the paper they were written on.

122. The amount existing in the form of coin at each period is also an entry which must be quite equally uncertain, is it not? We have not the least idea what amount of coin there is in the pockets of people in this country?—I think you could not rely upon that with any very great accuracy.

123. Still less, I suppose, can you rely upon any estimate of the whole quantity of coin accumulated and existing in the world at any time?—Certainly. You must use the best figures you can get.

124. And they are not worth very much?—Well, they are an assistance, no doubt.

125. Then with regard to the quantity of money coined, that is another item of guess?—I have already gone into that, and said that it is absolutely impossible to tell how much of that is due to re-coinage. It is most difficult to find that out, but I think that it possibly might be ascertained by inquiries from the different mints.

126. Would the Mint be able to tell whether the gold which they coined had at any previous time been in the form of coin or not? Do you think that statistics could be obtained of the amount of gold coined which is re-minted in the different mints of the world?—I think by application to the mints you could get a great deal of useful information. In the case of England you would, I take it, have to apply

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to the Bank of England for the particular information.

127. Do you think that it is possible to ascertain how much of the money which is coined each year is coined from fresh metal from the mine, and how much of it is due to the re-coining of gold or silver which has at some previous time been in the form of coin?—I do not suppose that it would be possible to answer this question with absolute accuracy, but I think you might obtain some useful information by applying to the various mints, and possibly also to the refiners of gold, if they were willing to give you the information.

128. Do you suppose that at any mint they would be able to tell you whether a bar of refined gold had come straight from the mine or whether it had previously been in the form of coin, had been melted down, and then refined again?—If that gold had in it the proportion of alloy which was peculiar to a particular coinage, no question they would know at once whence it came, but where it had been refined it would be more difficult to trace it.

129. (*Mr. Fremantle.*) Take the sovereign coinage, for instance. You are aware that more than 300,000,000 sovereigns have been coined, and you are also aware that the best estimates, your own among the number, give the existing coinage in this country at not more than 100,000,000*l.* You are also aware that there are statistics showing what the probable amount of sovereigns in the rest of the world is, and that would give you, would it not, a very good criterion of the amount of sovereigns, for instance, that had been melted up?—So far as those estimates go they would give that information.

130. And the result of those estimates, taking them as they stand, would be that a very large proportion of the sovereigns that have been coined since 1816 have been melted up?—No question; the larger proportion.

131. Your memorandum says that the imports of

gold into India have of late years increased, and then you give some statistics that you have received. Have any statistics ever been given as to the amount of gold supposed to be in India in one shape or another?—Yes. I believe there have been various estimates of the amount.

132. Could those estimates be laid before the Commission?—I have no doubt the India Office is in possession of them. I have never attempted such estimates myself.

133. Could you give the Commission any statistics as to the amount of gold believed to be in the world, say, at the beginning of the century, 1820, 1840, and 1860, with comparative statements as to the volume of trade and the population of the different periods?—I have not prepared any statistics of this description.

134. But such statistics would be useful, would they not, in order to show, so to speak, what the function of gold has been in relation to commerce?—I am afraid they would be so very conjectural. I should hardly value them much myself.

135. But it would be desirable, in your opinion, that such statistics should be obtained, if possible, in order to show what the function of gold has been with regard to commerce?—Yes, it would be useful, if it could be obtained, no doubt.

136. (*Mr. Houldsworth.*) On page 326 of your memorandum you say “If these statements can be “accepted as generally correct, the following points “appear,” and then there is number one, which refers to the proportion of the production of gold and silver to the coinage. I presume that that statement, or that conclusion, or the point that you bring out there, is affected by the question of re-coinages that we have been hearing of?—No question.

137. And would very seriously affect it?—I have no doubt that it is the explanation of the matter to a great extent.

The witness withdrew.

Second Day.

Thursday, 25th November 1886.

PRESENT :

THE RIGHT HON. A. J. BALFOUR, M.P., the CHAIRMAN, presiding.

MR. D. M. BARBOUR.
MR. J. W. BIRCH.
MR. L. COHEN, M.P.

SIR. T. FARRER, Bart.
MR. C. W. FREMANTLE, C.B.
MR. W. H. HOULDSWORTH, M.P.

MR. GEO. H. MURRAY, *Secretary.*

MR. STEWART PIXLEY examined.

Mr. S. Pixley.

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138. (*Chairman.*) You have given a great deal of attention, have you not, to the question of the production of the precious metals, and the amount actually in use in the various countries of the world?—Yes, I tried to get the most reliable information that I could.

139. Can you furnish the Commission with a table showing the average price of silver in London over a series of years as compared with gold?—I have prepared a table, which I will put in, showing the average price of silver each month, from 1833 down to 31st October 1886. (*See Appendix I.*)

140. From what source did you derive the information which you give us in this table?—Since 1852, from our own books. That is the year in which I commenced business; previous to that, from the books of the Bank of England melters, Messrs. Brown and Wingrove, who were kind enough to give the figures to me.

141. And I suppose that we may take these figures as being trustworthy?—Actual business transactions.

142. Has the price of silver at any time differed in other markets materially from that which has ruled in the London market?—I should not think very much so, because it is so soon balanced by orders transmitted to this market by telegram or cable. It is higher just now in New York than here.

143. But the rapid means of communication between one market and another practically bind together all the markets of the world, I suppose, as regards bullion?—Yes.

144. And has that been so during the whole period over which your tables extend?—I speak of 1852; my experience does not go beyond that.

145. That was before telegraphic communication had been made with France, and had so connected the markets?—There was no submarine cable to France in June 1852, but before December 1852 there was.

146. But even before that time, I suppose, any difference in prices in the two markets very rapidly

corrected itself?—Yes; it was only a question of two days at the outside.

147. Can you give the Commission any statement showing the production of gold and silver respectively over a series of years?—Of gold from 1852 to 1885; silver from 1852 to 1885, with the exception of four years, 1873, 1874, 1875, and 1876, and those I cannot get anywhere.

Production of Gold from 1852 to 1885.		Production of Silver from 1852 to 1885.	
	£		£
1852	36,000,000	1852	8,120,000
1853	31,000,000	1853	8,120,000
1854	25,000,000	1854	8,120,000
1855	27,000,000	1855	8,120,000
1856	29,500,000	1856	8,130,000
1857	26,500,000	1857	8,130,000
1858	24,900,000	1858	8,130,000
1859	24,900,000	1859	8,150,000
1860	23,800,000	1860	8,160,000
1861	12,650,730	1861	8,540,000
1862	20,412,940	1862	9,040,000
1863	20,733,560	1863	9,840,000
1864	17,887,220	1864	10,340,000
1865	13,886,280	1865	10,390,000
1866	24,035,850	1866	10,145,000
1867	15,890,160	1867	10,845,000
1868	19,141,900	1868	10,045,000
1869	13,833,370	1869	9,500,000
1870	18,420,230	1870	10,315,000
1871	22,874,340	1871	12,210,000
1872	19,239,340	1872	13,050,000
1873	21,300,000	1873	
1874	19,400,000	1874	
1875	22,363,480	1875	
1876	23,663,680	1876	
1877	15,251,050	1877	16,208,000
1878	20,738,470	1878	18,976,000
1879	13,110,440	1879	19,234,000
1880	9,346,100	1880	19,340,000
1881	9,962,790	1881	20,433,000
1882	14,375,750	1882	21,190,000
1883	7,733,300	1883	22,843,000
1884	10,720,360	1884	23,000,000
1885	13,373,940	1885	17,500,000
668,945,280			

148. Are these also derived from information which has come across you in the course of your business?—Yes, and from all the best totals that I could get.

149. Why do you choose 1852 as the year with which you start?—I began business in that year, and my books go back only to that.

150. I think the Californian discoveries were usually dated about 1847, and the Australian about 1850–51?—I believe you are right.

151. So that practically you can only give us the figures after the production of gold had reached something like its maximum?—That is all.

152. In fact, I observe that the first year that you have given us is the year of largest production during the whole series of years respecting which you furnish information?—Yes, I believe it is.

153. How comes it that between the years 1872 and 1876 you have not been able to obtain similar information to that which you have given us for the other years?—The papers have been lost.

154. The papers of your own firm?—Yes; no doubt you will get the figures.

155. Have you compared the estimate which you have handed in with that which has been made by other statisticians for the same period?—Yes, the Bankers' Institute. The secretary was kind enough to check a great many of my figures for me, and his figures, although showing what he considered a considerable variation, are still very close.

156. Are these figures your own figures uncorrected by the Bankers' Institute, or are they your figures as corrected?—Corrected by the Bankers' Institute and Mr. Seyd's book.

157. Is the modification introduced into your original figures by those sources of information im-

portant?—Sometimes about a million or a million and a half per annum; I do not think more.

158. That would be, roughly speaking, not more than about five per cent.?—Yes.

159. Have you compared these figures with those which Mr. Soetbeer has collected?—I have not.

160. You have not seen Mr. Soetbeer's estimate?—Well, I have seen it, but I think his has been incorporated with several others that I have seen.

161. So that you think that when the correction was made by the secretary to the Bankers' Institute he took account of Mr. Soetbeer's estimate as well as other estimates that have been made independent of your own?—I should think so.

162. Can you explain to the Commission by what means your firm arrived at the results which they have embodied in these figures?—Well, the chief means we took were first an account of the arrivals of bullion that came into England at all the ports.

163. (*Sir T. Farrer.*) From the official statistics?—No, there were no official statistics until, I think, the year 1854, but Mr. Seldon, who is the head of the Statistical Department in the Custom House, used to come up to check the statements of imports and exports with us, and finally, when he complained of the trouble and difficulty there was in getting any reliable statistics, I suggested to him whether the Commissioners of Her Majesty's Customs could not induce the Government to pass a short Act to make people declare the bullion on arrival and shipment. It used not to be declared at all, and was entirely dependent on the ship's manifest. There is now an Act that people must declare bullion, gold, and silver, though we know that there is shortage now. Still, it is very much more accurate than it used to be.

164. (*Chairman.*) Before that Act passed you simply arrived at your results by examining the ship's manifest?—By watching in the papers we could see in "The Times" the so and so ship arrived with so much in gold, so much in silver, and so much in Mexican dollars.

165. Having thus arrived at the amount imported into the United Kingdom, how did you proceed from that to draw any conclusion as to the total production of the world?—We got that from a variety of sources.

166. Could you give us some account of the sources, in other words could you tell us how you set to work to compile from the data at your command the figures which you have laid before us?—I went to the books compiled by the Secretary to the Treasury at Washington, Mr. Ernest Seyd's book, the Bankers' Institute, that is a very late authority, still they have got some very valuable books in their library, and books which the Secretary compiled, and papers that have been published since.

167. Then these figures are not so much the result of your own experience in business as the result of work which you have undertaken as an independent statistician?—Yes.

168. Are you inclined to think that these estimates are trustworthy, as a whole?—I think so, as near as you could get for such enormous amounts, as near as you could expect them to be.

169. Then, by the use of similar means, you could of course have obtained figures going back much earlier than 1852?—I found very great difficulty in getting beyond 1852.

170. Why was that?—I could not find them in any print, in any books.

171. Mr. Soetbeer goes back, I think, far earlier than that?—Yes; to 1493.

172. But you have not been able to find any figures practically before 1852?—No, none.

173. Now, to turn to questions of consumption, could you give us any statistics relating to that subject, classifying consumption under the heads of coinage, industrial purposes, wear and tear, and hoarding?—The consumption for coinage I did not pay much attention to, because I could get that by reference to the publications of the deputy master of the Mint.

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Mr. S. Pixley. They have been got up so accurately that I have not taken so much notice of that.

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174. But, surely the Mint would only have accurate statistics for the United Kingdom. You have made no attempt to estimate the coinage of other countries?—No, not at all.

175. Have you made any attempt to estimate the consumption under the head of industrial purposes?—Yes, for gold, and the nearest that I could get (and this has been confirmed by Mr. John Martin) is the Bankers' estimate of gold consumed in the arts, manufactures, &c., 2,000,000*l.* per annum for the United States; 2,000,000*l.* for France; 3,000,000*l.* for England and Holland; and the next leaves a very wide margin indeed, from 5,000,000*l.* to 10,000,000*l.* for India. But as to this last it is supposed to include a great portion of that purchased in England, but you cannot be quite sure that it was absolutely sent to India.

176. Why cannot you be sure?—You do not know whether it absolutely went to India.

177. It was purchased for India, but you have no proof that it has gone there?—No proof.

178. But this 5,000,000*l.* for India, which you state is the amount required for industrial purposes, is that to be distinguished from the amount which under the head of hoarding would also be put to the credit of India?—Distinguished from it.

179. The meaning of my question is this: We all know that there is a great deal of hoarding in India, but it is largely in the form of bracelets and articles of that kind. Now, it is clear that hoarding in the form of bracelets may either be described as consumption for industrial purposes or consumption for the purpose of hoarding?—The average of hoarding for India for 20 years from 1865 to 1885 is supposed to have been at the rate of 3,200,000*l.* per annum.

180. That would bring up the total for India, according to your estimate, to a little over 8,000,000*l.*?—Yes; India itself 8,000,000*l.* But I think that bracelets and articles of that kind can hardly be considered entirely as hoarding. They are works of art or ability. I may mention that I have here a bar which is the shape in which nearly all the gold that goes from England, with the exception of sovereigns, now goes. It is a 10-oz. bar. It is fine gold 998. Those bars pass from hand to hand. A brother of mine met with them in changing notes 25 years ago in Cashmere, and he noticed the stamp of my firm on them.

181. So that to all intents and purposes they pass as currency?—Without any doubt.

182. In this table you have dealt with the United States, France, England, Holland, and India, but there is no mention made of Germany and the rest of Europe?—I could not get it at all.

183. Nor of Spain, South America, or the rest of Asia?—No.

184. Do you think that the amount required by these countries for the purpose of arts and manufactures is large?—I think it is for Germany.

185. Have you compared your estimate with that of Mr. Soetbeer on the same subject?—I have not.

186. Mr. Soetbeer's estimate is 12,500,000*l.* for the whole world. Your estimate would come to something between 12,000,000*l.* and 17,000,000*l.* for the United States, France, England and India?—Yes.

187. So that your estimate is a far higher one than Mr. Soetbeer's?—Yes, I believe it is.

188. But you have had no opportunity of noting the data which Mr. Soetbeer has used, and therefore you can give no estimate of the comparative trustworthiness of the two sets of tables?—No, I cannot.

189. Can you give us any idea of how you have arrived at these figures?—From the Bankers' Institute. Mr. John Martin gave me them.

190. But you have not yourself independently checked them?—No.

191. And you are not aware how the Bankers' Institute got them?—From books in their library.

192. But you do not know what the books were; you have not gone into that question at all?—No.

193. So that practically you can simply give us these figures on the authority of the Bankers' Institute?—Yes.

194. And you cannot tell us what reliance the Bankers' Institute themselves are disposed to place upon them?—No, I cannot.

195. I think you told us just now that you had made no estimate of the coinage of all the world, but that you had got from the Mint the coinage for the United Kingdom?—No; I could get it from the Mint Reports, but I have not taken it out.

196. Have you got any facts relating to coinage?—Only the gold available for the supply of coin for the periods of 10 years from 1851 to 1884.

197. By available do you mean really used for coinage?—Actually in this country for the supply of coin.

GOLD BULLION available for the supply of Coin.

Period.	£	Per Annum.
—	—	—
1851–1860	227,800,000 at the rate of	22,780,000
1861–1870	140,600,000 „	14,000,000
1871–1880	102,550,000 „	10,255,000
1881–1884	16,200,000 „	4,050,000

198. Can you give us any estimate of the amount of coin actually in the hands of the public and the banks at any periods in this country?—For that I am rather dependent also on the Institute of Bankers, and perhaps you may have had before you the census that they took, assisted by nearly all the private banks in the United Kingdom, in March 1883.

199. What is the result of that?—It showed that the amount of gold held by the banks, including the Bank of England, was 22,010,000*l.*

200. The amount at that date in the banks?—Yes.

201. Not in the hands of the public?—No.

202. Have you any estimate of the total amount in the hands of the public, including the banks?—No.

203. (*Mr. Birch.*) That 22,000,000*l.* included the light gold?—Yes, everything.

204. It was the gold coin, not the gold, that you estimated at 22,000,000*l.* just now, as the estimate which you received from the Bankers' Institute?—Yes.

205. The gold coin?—Oh, no; it did not mean the reserve or the bars held by the Bank of England.

206. I asked whether it included the light coin, and you said, Yes. Outside they treat it as ordinary gold coin, inside we do not.

207. (*Chairman.*) Is it possible to distinguish between that part of the bullion available for coinage, which comes straight from the mines, and that which is old coin re-melted?—From the mines it might be, unless the gold is refined here. For instance, of the refinable gold that comes here we have a very large amount of it.

208. What is refinable gold?—Gold containing silver. It pays a refiner to give a little extra price for it, and he takes his profit out of the skill with which he can recover the silver from it. We sell all that, either to Messrs. Rothschilds or Raphaels, the refiners, two of the largest in the world and two of the best in England. They pay cash for it directly,—there is no credit in our business,—and they bring out the gold 998 fine, as fine as this bar. Not even the clever chemists of the Mint could tell where that came from. Once gold is refined, its origin is quite lost. It is very different from bars melted from coin and sent in. Then you could trace it very closely.

209. Do you think that coin is melted down before being sent in for re-coinage?—Very often, when it suits. Just now, with Spanish coin, it would be melted down; with Dutch coin it would be melted down.

210. If that melted coin is put through no process of refining, you could discover that it was coin re-melted?—I daresay they could give a very shrewd guess for every bar that they handled.

211. Is it ever worth while for itself to melt down coin for the purpose of re-coining, to refine it so that its origin would not be known?—Not unless there was something very important wanted, because it is nearly all alloyed with copper.

212. (*Mr. Birch.*) Is it not the case that gold sent to Spain is generally refined?—Yes.

213. As to whether you could distinguish between gold that proceeded from coinage melted, or direct from the mines, the gold that you referred to as containing silver comes direct from the mines; it is not the proceeds of coinage. It is refined because it contains silver, and it pays to be refined. That has nothing to do with the coinage melted?—No.

214. When you send it to India you know it must be refined gold. Spain is not the only country; there are several countries that would only take fine gold?—You cannot send gold of less purity than that (*showing bar witness produced*) to India, but Spain would take less fine gold than that.

215. (*Chairman.*) Then we may lay it down generally that while in England it is not customary to refine re-melted coin, in many other countries it is customary; and therefore it would be impossible to find statistics to show how much of the bullion sent in for re-coinage is old coin, and how much comes straight from the mines?—Yes.

216. (*Mr. Birch.*) You said that a great deal of coin was melted. Now, I think since the Bank raised its price for coined gold, as it did some years ago, with very few exceptions, the gold goes into the Bank in coin?—Formerly it used to pay people to melt it, and sell it to the Bank as bar.

217. That is not the case now?—No.

218. Therefore, you would find that very little coin, except what is sent abroad, is melted and refined?—Very little, except in those countries where the assay is not what it ought to be.

219. (*Chairman.*) I think I understood you to say that you have not yourself looked into the question of the consumption of gold for arts and manufactures?—No.

220. Have you looked into the question of waste by wear and tear of coin?—No.

221. And you have no original information with regard to the hoarding in India or elsewhere?—No.

222. Have you looked into the question of the total stocks of the precious metals existing at various epochs of the world's history in the form of coin?—No, I have not.

223. Have you considered whether any useful conclusions can be drawn from the import and export of bullion and specie, with regard to the changes which may have taken place in the distribution of the precious metals among the different countries of the world?—I do not know what use they would be expecting to statisticians.

224. You think in fact that no useful inferences can be drawn from them?—I do not know of any.

225. Do you think it is possible to make any forecast as regards the future production of the precious metals?—I think in many countries it would be something of a guess-work, but I think we shall see a very much increased production from India, and especially from the Cape.

226. Of gold or silver?—Of gold. In talking the other day with Mr. Matthey, who is a colleague of mine at the Goldsmiths' Hall, and one of the Bank of England assayers, he was mentioning to me some conversation he had with a friend who had just arrived from the Cape. He heard there of the enormous amount of gold that had been discovered during the Portuguese occupation of the part of their territory that they were afterwards turned out of. Mr. Matthey said I might use this if it would be of any interest to you. You can consider it for what it is worth: "The amount of gold taken by the Portu-

" guese when they had possession of the district in the Transvaal or some other part of South Africa,—I don't know the spot,—until they were driven out by the Kaffirs, amounted to 1,000,000*l.* sterling each year, or 4,500,000*l.* altogether."

227. What date does this refer to?—Just before the people were all driven out.

228. (*Mr. Birch.*) Last century?—Would it be so long ago as that? Yes, I daresay it might. But the gold is there, any quantity of it; and this gentleman is home in England now. The estimate of the production of gold is at least 10 per cent. in the next few years over the past. That is the general estimate formed by the miners.

229. (*Sir T. Farrer.*) Over the whole world?—Yes, over the whole world, without counting any future discoveries.

230. (*Chairman.*) Is that increase chiefly from India and the Cape?—India and the Cape and Queensland. The Queensland mines are turning out very rich.

231. Have you any similar forecast to make with regard to silver?—No.

232. Is it the best opinion that the American mines are going to prove as fruitful in silver as was supposed a year or two ago?—I think there are discoveries every day. Their working depends a good deal on the price at which the silver can be sold. Very few mines can produce silver for less than 85·4 cents, which is equivalent to 3*s.* 6*d.* per oz. One or two large mines were shut down, but that was because the men refused to reduce their pay.

233. So that directly silver sinks to 3*s.* 6*d.*, or rather in proportion, I should say, as it approaches 3*s.* 6*d.*, the production decreases?—The mines are shut down. The men get wages of five dollars a day in gold. There is one mine I am allowed to mention the name of, the Blue Bird in Butte city, that can produce their silver at 1*s.* 2·9*d.*

234. (*Mr. Birch.*) Have you any idea what proportion the wages bear to the general expenditure?—It varies in every district. All the Montana district is governed by the wages in Butte and by the knights of labour.

235. I want to know what proportion of the general expenditure of a mine is represented by wages?—I cannot tell you.

236. Because there are royalties?—The chairman of one of the largest mines in Montana said: "We could produce our silver at 1*s.* 6·3*d.*"

237. (*Mr. Cohen.*) Where is that laid down, at the mine's mouth?—At the mine.

238. (*Chairman.*) But that is extremely exceptional?—That and the Blue Bird are two exceptional cases.

239. On the whole we may say that directly silver reaches the lowest point it has yet reached, a very rapid falling off in the production may be expected?—Yes; the mines may be shut down unless the men consent to work for less, and they will, after they find one mine after another shut down, as it means starvation to them. They cannot travel very quickly over these huge tracts of country.

240. But still taking a course of years is it the opinion of those best acquainted with the subject that 3*s.* 6*d.* is the lowest point at which silver can be produced to yield a profit?—Yes.

241. (*Mr. Cohen.*) I should like to know whether your answers refer only to the silver mines of North America, or silver mines in other countries?—Chiefly North America.

242. You are not acquainted with the cost of production in South America, Mexico, or the Pacific Coast?—No.

243. (*Mr. Fremantle.*) How would you reconcile the statement made by the correspondent whom you quoted that silver could not be raised at less than 85·4 cents per ounce, with the other statement made as to the cost of production at Montana?—He assumes 85 for the general country of America, North and South.

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Mr. S. Pixley. 244. (*Chairman.*) I suppose silver mines are like other mines, they vary in productiveness?—Very much.

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245. And according as the price of metal sinks, so one mine after another is extinguished; but the number of mines that can produce silver at less than 3s. 6d. is so small that we may practically ignore them, and state generally that 3s. 6d. is the lowest price at which it can be produced at a profit?—Unless wages are lowered.

246. With regard to the question just asked by Mr. Cohen, as to whether your facts referred to the United States alone or to other countries, is it not the case that of the 25,000,000*l.* of silver now being produced, 10,000,000*l.* comes from the United States?—I should think it did, quite.

247. And including Mexico and the United States 16,000,000*l.*?—I should think it quite likely.

248. Leaving only 9,000,000*l.* for the rest of the world?—I think it is quite likely.

249. In the facts that you have given us, do you refer to Mexico as well as to the United States?—Yes.

250. (*Mr. Birch.*) During the years 1872 to 1875 a large quantity of gold poured into Germany with a view to establish a gold currency in that country. Can you give us any idea whether this gold was from recent productions of the metal hoards in Europe or elsewhere, or the currency of gold-using states. I believe you purchased a great deal of the gold that went to Germany?—I should think an enormous deal of it came from Australia, a very large amount indeed from America, and you know best the amounts that were taken out of the Bank of England at times. They went to the Bank of England in the last resource, when we were compelled to take it, but we stopped millions of sovereigns at Brindisi and Naples, that were coming home. They were delivered there and paid for in London by telegram the same day.

251. If we gave time I daresay you would be able to draw up very interesting notes in regard to that?—I would try.

252. To see what amount of our gold currency may have been melted and sent away in bars?—Yes.

253. During the years 1881 to 1883 in like manner 18,000,000*l.* sterling in gold were remitted to Italy, being the proceeds of a loan contracted in London. Can you give us any idea as to whence this gold came?—I was answering that, as I thought, more in the last answer, because it was for Italy that we intercepted the sovereigns, not for Germany.

254. We find that during the last 10 years the following loans have been negotiated in London for gold-using States:—Argentine Republic, 6,941,900*l.*; Buenos Ayres, 4,303,300*l.*; Brazil, 9,900,800*l.*; Portugal, 31,354,160*l.* The Commission understand that on each occasion a certain amount of gold was remitted to these countries in virtue of the said loans. Can you give us any particulars as to the amount so remitted; whether any has been returned to this country; and if so, what amount?—I should think nearly the whole of the remittances have been sent in sovereigns from this country, and they come back gradually in amounts from 5,000*l.* to 10,000*l.* and 15,000*l.* a steamer.

255. But you have no idea of the total amounts?—No; I think it would be impossible to say.

256. (*Mr. Cohen.*) Have you any opinion as to the amount of gold in circulation in this country, whether it has increased or decreased within the last 20 years?—No, I have not.

257. In the table that you have put in just now there is the amount of silver coined each year since the year 1833, I think. That is the amount of new coinage; it takes no account of anything that has been re-coined?—No.

258. The international movements of sovereigns which you spoke of just now, are they always in whole sovereigns or half sovereigns?—Always whole.

259 Half sovereigns do not travel about from one

country to another?—They would, but they are in such a bad state that nobody likes them; they are so light.

260. With respect to light gold the amount of light gold locked up in the different banks is said to be 10,000,000*l.* sterling; have you any opinion on that subject?—No, excepting that in the course of conversation with the Secretary of the Bankers' Institute, he gave me that amount too.

261. You do not think that there are any authentic data on that subject?—No.

262. Would you connect that with the locking up of gold in this country?—No, and I think people would not take a half sovereign if they could avoid it; they do not go now as they did on the continent.

263. (*Mr. Birch.*) All the gold exported coming from the Bank of England is full weight?—All of it which is in sovereigns. I may mention that in 1883 I got some information for the late Professor Fawcett as to the estimated gold and silver coin in circulation for the whole world. Gold 670,734,750*l.*; silver 524,153,970*l.* He considered it accurate enough to reproduce in his lecture at Cambridge.

264. (*Chairman.*) That puts the total amount at nearly 1,200,000,000*l.*?—Yes.

265. In what year?—That was in May 1883.

266. (*Sir T. Farrer.*) You gave the price of silver from 1833?—Yes.

267. Are there tables showing the price back into the last century that one can rely upon?—I believe they could be had at the Bullion Office.

268. London is the chief market for silver, is it not?—Yes.

269. And the London prices practically rule the world?—Practically govern the whole world. They are paying a little more just now in New York than we are.

270. If persons want silver in any other part of the world, is it London that they apply to?—Unless it was China, and then they would get it at the San Francisco side.

271. Is the French Government now buying silver in London?—Yes, very largely. Yesterday they stopped for a time, and down went the silver market.

272. What are they buying it for?—Coinage for the Tonquin dollar, I am told.

273. They have an immense store of silver in France?—Oh, yes.

274. Have the United States Government ever bought silver?—I do not think they bought any. I could give you the exact year we bought very largely. We were the London agents for the San Francisco people. In one week we bought something like half a million sterling to go back, and the very same week we received about half a million from them.

275. Does it actually come and go?—They thought at that time that they might be "cornered," so they positively bought half a million of silver.

276. It actually went back?—Yes, only I should say not in the same shape. The bars that we had from them contained gold for refinable silver.

277. Is there at any time a flow of silver from this country to the United States?—No, not often; not of late years.

278. I heard when I was in the United States that the United States Government were unable to obtain in the United States silver enough for their Bland coinage at the London prices, and that they had been obliged to go elsewhere?—That is quite true. The price yesterday was five cents. higher in New York than our price. This morning I had a message on my desk stating that they could not give us any at the London rates, they were getting higher in New York.

279. Do you know that there has been lately a premium on gold in France, and what it amounts to?—I do not know.

280. (*Mr. Fremantle.*) You said that the silver coined in England in your list only included silver coined from bar?—Oh, no.

281. I understood you to say so. The amount stated in your list included re-coinages?—Yes.

282. Then you said that half sovereigns were not exported because they were very light?—Yes.

283. But is there not another reason why half sovereigns should not be exported, namely, that full weight half sovereigns would not be so heavy as full weight sovereigns?—That may be very likely.

284. For the reason that the difference between the full standard weight and the lowest current weight of sovereigns is less than the difference between the full standard weight and the lowest current weight of

half sovereigns?—Yes, you could not get a lot of new half sovereigns, you know, and I do not think it would pay if you could.

285. Even if you could get current half sovereigns they would not necessarily be so heavy as current sovereigns?—No.

286. (*Mr. Houldsworth.*) Can you give any facts or figures showing in general terms what has been the course of the demand for gold and silver respectively during the last 40 years?—I could not give it you in terms.

The witness withdrew.

Sir HECTOR HAY examined.

Sir H. Hay

287. (*The Chairman.*) You have given a great deal of attention, I believe, to statistics, concerned with the production of the precious metals, have you not?—Yes, I have.

288. And you have prepared tables dealing with the question?—Some tables of mine were brought before a Committee of the House of Commons some time ago, and I have continued them from that time up to the present.

289. Was that Mr. Goschen's Committee of 1876?—That was so.

290. You have continued these tables from the year 1876 to the present year?—I have; they are here. (*See Appendix II.*)

291. From what date do they begin?—If I remember right it was 1847, at the time of the discovery of gold in California, and subsequently in Australia. It was from that point that I took up the statistics.

292. Could you let me see the tables?—These are the present ones, from 1871 up to the present.

293. Could you put in both sets of tables?—I have not got a copy of the earlier tables. There is a number of things added to these tables which were not in the original ones, which were simply the production. Here you will see I have put in a good many other items.

294. I see you here give "Estimate of the production of the world," then the imports and exports of England and India, respectively; then the coinage of sovereigns, and coinage of the principal foreign countries. Could you add to the tables that you gave to the Committee of 1876, facts on these other points, so as to make the two tables continuous on all the subjects dealt with by this table?—I do not know that I could get the particulars so far back as that.

295. It would be very important if we could obtain it, to have all the facts dealt with in this table for the whole period. Do you think it is possible to obtain those facts?—I think it is possible; it would take much time.

296. You think you have sources of information which would enable you to give the facts?—I have only the same sources as anyone else who takes the trouble to go into it. I should have to apply to the foreign Consuls and people connected with the trades of the different countries to find out from the Mints there, or whatever it may be, to ask them what they had done. I have no other means of doing it than that; it must be done by inquiry, which anyone could do as well as myself. In point of fact, the only way in which it could be arrived at with any degree of accuracy would be for the Consuls in different places to be required to make returns of these matters. They could find them out much better on the spot than it could be done here.

297. They could, in fact, obtain from the records of the Mints facts which would enable them to form some kind of estimate?—I have no doubt they could. In some countries they would not give the information possibly, but I daresay they could find it out.

298. You have divided your heads of production into North America, Australia, Mexico, and South

America, Russia, and other countries. I suppose your figures from Australia are the official figures?—From the Royal Mint returns. I got them from the year books published in New South Wales and Victoria.

299. From the United States?—They are their own. There is, however, an explanation I wish to make with regard to them. My figures differ somewhat from those of the Director of the Mint of the United States, for this reason, that I got my figures from the annual statement of Wells, Fargo, & Co.'s manager, Mr. Valentine, who gives the value of the production in the United States in different figures from the Mint; and I think he is more likely to be correct than the Mint figures, for this reason, that when the Mint authorities send round to the different mines to ascertain how much they have produced, it is to the interest of those mining companies to exaggerate their production a little, whereas when they send their bullion by Messrs. Wells, Fargo, and Co., all the different mines would declare the actual values. The mining companies would not wish to pay freight on more than the actual value, and on the other hand they would not like to declare a less sum because they are insured in the same way, and therefore I think that Wells, Fargo, & Co.'s estimate is more likely to be correct than that of the United States Mint Director.

300. Do you think that the figures of the Australian Mint are liable to the same source of error with the United States?—I think not.

301. Why not? Would not the mining companies have the same motive to exaggerate their production as the United States?—They would have, but I do not think that would be carried to the same extent as in America.

302. Then I understand the United States estimate is not an official one; the Australian one is an official one?—That is so.

303. Then Mexico, and South America?—It is a very difficult thing to say how that is arrived at. A great deal comes from the Director of the United States Mint, and Dr. Soetbeer's reports, and from a number of other quarters. I have sent round to the Consuls of the different States, and got from some of them estimates, and from others none at all. I judge that my estimate as to Mexico and South America is pretty nearly correct, though not so large as that of Dr. Soetbeer and of the Director of the United States Mint, for this reason, that I believe at least seven-eighths of the production of silver and gold in those countries, with the exception mentioned below, come to England; and on comparing the amounts estimated by Dr. Soetbeer and the United States Mint I find a great discrepancy. The exception is that about half of the silver coinage of Mexico (which is almost equivalent to the production) goes to San Francisco, and, making allowance for that, I think the figures I have taken nearly represent the production of the mines.

304. One of your sources of information was the Report of the United States Director of the Mint?—Yes, the United States Government instructs its representatives in different States to make inquiries,

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and there are reports given by those consuls and ministers in different places. I have taken the figures they have given where the United States Mint Director has taken them.

305. The United States Mint Director simply makes an estimate from the same sources of information that you have open to you?—In fact, the United States have better, because the United States Government commission their representatives in different States to make the inquiries.

306. The United States Mint has no direct interest in anything the mining companies may do; the money does not come direct to it?—Oh, no; it inquires what is the production and the amount of the coinage.

307. Does your estimate differ materially from the United States Mint?—Yes, it does. It is below.

308. Have you modified yours in accordance with the estimate of the United States Mint?—I have to some extent, because in the first estimate that I made, I probably did not make sufficient allowance for the smaller States in South America, the quantities they might have of silver or gold, and I have seen reason to increase the proportion in those tables.

309. I suppose your method of procedure has been to take facts from official sources in certain States where you could get them, and where you could not get them to make a guess, founded on the facts obtained from States from which you could get information?—Yes, and also we have some idea of the amounts produced by the amounts brought to this country from those countries. That is to say, leaving Mexican dollars out of the question for a moment, seven-eighths of the silver produced in Mexico and South America come to this country, I can ascertain from the Board of Trade returns and other means the amount of gold and silver received here from those countries.

310. Do the Board of Trade returns distinguish the country from which the bullion comes?—They include Mexico and South America, with the exception of Brazil, in one amount.

311. Is that a large exception?—No, it is very small comparatively, only about a quarter of a million a year in gold; no silver.

312. (*Mr. Birch.*) There would be no difficulty by the ship's manifest in obtaining the information as to whence it comes?—Oh, no, none whatever; in fact, at the Custom House they have all those figures.

313. (*The Chairman.*) You have not thought it necessary to correct the Board of Trade returns; they are adequately trustworthy?—As much so as any statistics can be. You can never make people declare the exact value. It is sometimes the interest of the shipper and consignee to declare under, and sometimes over, value. You cannot get that with any accuracy. If you are within a million in the year you may think yourself fortunate.

314. I understand your general method of procedure has been this: You have formed an estimate from official sources of what is produced in Mexico and South America; you have corrected that by an entirely different calculation founded on the theory that seven-eighths of what is produced has come to this country; you have further corrected your result by the figures given by the United States Mint, and those arrived at by Dr. Soetbeer, and this column 3 that we have shows the general conclusion at which you have arrived?—That is so.

315. Is that above or below the estimate of Dr. Soetbeer?—Below. In point of fact, Dr. Soetbeer, to a great extent, goes entirely upon the United States Mint report. I think the figures are identical in a great many instances.

316. You think he has not made an independent inquiry in the manner that you have made?—No.

317. So that practically the United States Mint and Dr. Soetbeer do not come to us as two authorities but as one authority?—I think so, except that in Dr. Soetbeer's book there are a great many things they have not in the United States Mint Report.

The coinage in the different countries he gives, but the United States Government does not.

318. Then your next column is Russia. What is your source of information with regard to Russia?—To some extent I think that was originally from the United States Mint, but I took means to compare it with other estimates, and I found in some work, which I cannot remember for the moment, what was the total amount of gold raised in Russia in a series of 10 years, 1868 to 1877, and took an average of those 10 years. Then for a more recent date I wrote to the Consul General for Russia, and he sent me the official figures for, I think, two or three years up to 1882, and said that he had no other particulars; he could not give anything later.

319. I see 1883, 1884, and 1885 you have put down 5,000,000*l.*?—An even sum, because I estimated that if it was between 4,500,000*l.* and 5,500,000*l.* we might take the average as being a fair estimate.

320. So that your figures for Russia are partly an estimate founded on an average of years, are partly taken from the United States Mint report, and partly from some information which the Russian Consul General has furnished you?—Yes, that is so.

321. The last column is "other countries." The amount is not very great; could you tell us from what source you obtained it?—To a great extent from Dr. Soetbeer. Of course, with regard to Germany, for instance, we must assume that he is the best authority, and with regard to Austria also, and there is very little gold produced anywhere else except in those two.

322. There is some in India, is there not?—Well, I do not think much of Indian gold mines.

323. You do not think that India has a future as a gold-producing country?—I will not say that exactly, I have not much confidence in them.

324. You do not think that mines known of and already open largely increase the production?—No.

325. Because one witness told us that good authorities anticipate a large increase in the production of gold in India and the Cape?—Yes, I have no doubt about the Cape. I have never been in India, and I have no means of knowing.

326. He was not referring to mines undiscovered, but mines discovered?—It is impossible to say what may be discovered, but one would imagine that they would have known something about them by this time.

327. Have you anything to say as to the production of Queensland?—Queensland has greatly increased of late years, very largely indeed, otherwise the Australian report would be much less than it is, because New South Wales and Victoria have both fallen off in production.

328. I see you have put down the last four years under the head of other countries at a similar round sum, so I suppose it is very conjectural?—Very; at the same time I have no doubt it is within a few hundred thousand pounds either way, and it is impossible to go nearer, I think.

329. Of course, you would admit that there are certain sources of error applying to all those tables, and therefore, to the total result?—Yes.

330. Could you give us any conjecture as to the margin of error that there is likely to be?—Well, supposing we were to say 10 per cent.

331. Would you say 10 per cent. was the outside?—I should think so. I have not considered the subject, but speaking off-hand, I should say the error would not exceed 10 per cent.

332. This is all I want to ask you about the production of precious metals for the moment. Now, can you tell us anything with regard to the consumption?—Yes, I have been making inquiry about that. You are speaking now of consumption for purposes other than coinage?

333. Well, we might classify consumption under the heads of coinage, industrial purposes, wear and tear, and hoarding. Taking coinage first?—Those are official figures.

334. You have given here the coinage in sovereigns in England and Australia. Those, I presume, are taken direct from official sources easily accessible?—Yes.

335. Have you any similar facts with regard to other countries?—In continuation of the coinage columns you have the coinage of all the chief European countries.

336. The United States?—That is from their own reports, from the Mint reports: that must be exact, because it gives the number of pieces.

337. Germany?—That is from the official returns of the German Mint.

338. Russia?—Well, that is not so certain; I think I got those from Dr. Soetbeer, but as a fact you will find that nearly the whole production of the mines of Russia is coined. There has been no export of gold to my knowledge in the last 40 years, I may say, of gold in any other shape than coin.

339. In the column with regard to France I see there are a good many places blank?—No coinage, or so little that it did not come within one-tenth of a million.

340. Belgium the same?—Yes.

341. Italy, are those from official sources?—Yes. Italy I got through Messrs. Hambro and Son.

342. Austria?—Austria, I think I got from Dr. Soetbeer.

343. In these tables of coinage you omit all reference to Mexico and to China?—Well, with regard to Mexico, the reason I did not put them in there is that nearly all their bullion is converted into coin, the Mexican dollar and doubloons, and it goes away in the same form. You may withdraw it altogether—I am speaking of gold now—from the quantity of gold that remains to be coined. I mean to say the total production of Mexico is coined.

344. (*Mr. Birch.*) No bars, or very little indeed?—Every now and again we see a consignment of bars of Mexican silver, but I should say nineteen-twentieths come in the shape of Mexican dollars.

345. Formerly a great deal came from South America in bars?—Not from Mexico; from the West Coast. I have gone away from gold now, as you have asked the question.

346. (*The Chairman.*) I understand you to say that we may simply take the column referring to Mexican production and turn that into coin, for the whole of it is used for coin and none for other purposes?—Yes, very little.

347. Is it the same with regard to South America?—No; from South America we get bars.

348. You have not given us a column stating the production of Mexico as distinguished from South America?—No.

349. And China?—There is no coinage in China.

350. At what price is the silver valued at?—At 5s. an oz., for this reason, that if you want to compare with the amounts stated in the previous estimate, many years ago, you must value it in that way. The actual value is much less now, but for comparison I have taken it at 5s. an ounce, which the former tables were taken at, or 4s. a dollar.

351. I suppose, generally speaking, all the observations you have made with regard to gold apply to silver?—Yes.

352. You stated that your estimate of gold was above that of Dr. Soetbeer?—No, less.

353. Is the silver production also less?—Yes. I think, generally speaking, he over-estimates the production.

354. Can you say off-hand how great the difference is between your two estimates?—No, I should not like to do that.

355. But at all events it does not approach that 10 per cent. of which you spoke just now?—Oh, no.

356. Now you have given us the coinage at any rate of a large part of the world. Do you believe it to be possible to form any estimate of how much of the annual coinage is from metal fresh from the mines, or how much of it is from old coin re-

melted?—I do not think it is possible. There is a very large proportion of it from coin re-melted. As you will see, there is really a great deal more coined than is produced every year.

357. And the same is true of silver?—The same is true of silver, not to so great an extent.

358. The annual coinage largely exceeds the annual production?—With regard to silver I am not sure that it is large, because the only coins as a rule that are re-melted are those of the South American States. Mexican dollars are not re-melted as a rule, but very seldom, because they generally command a premium for China.

359. The coinage of gold is nearly one-third more than the production, and the coinage of silver close to one half?—If the figures had been reversed I should have thought it was nearer the mark, but of course I cannot be positive.

360. But that enormous discrepancy you regard as wholly accounted for by re-coinage?—Certainly, and by the knowledge of the fact that we have in this country melted millions of United States gold coin at times; and also millions of sovereigns have been sent to America and re-melted there.

361. But if I desire to find out the actual amount of available coinage in the world, coinage statistics would appear to be nearly useless for that purpose?—Not exactly, but they would not give you any certainty of the amount.

362. But an error or an uncertain element of at least one half in the case of gold?—The uncertainty is not of that extent. Although the production of gold is probably not more than two-thirds the coinage, it does not follow that you would be all that out in your calculation in estimating the quantity of coin.

363. Then could you give us any idea of what correction, in your opinion, we ought to apply to the statistics of coinage to help us to the amount of coin annually added to the world from the mines?—The only way in which you could do that would be to induce the Mints of the different countries to give you the statistics of what they have coined. The United States Mint does that. In their statement they give a yearly report, and they state there how much is from native gold, how much from foreign coin, and how much from their own coin re-melted.

364. But I understand that when gold has been re-melted for the purpose of refining it is impossible to detect its origin?—That is quite so, but as a rule the coin which is re-coined would not be refined first, because its quality is known, and it is simply used in that form.

365. (*Mr. Birch.*) In different countries they use different alloys, do they not?—No, the alloy of gold is always copper, in these days at least.

366. (*The Chairman.*) Then we may conclude from your last answer to me with reference to the conclusions to be drawn from statistics of coinage, that until other Mints follow the example of the United States Mint, and distinguish the sources from which their bullion comes, we really can form no trustworthy conclusions from any statistics as to the amount of re-coinage by the respective Mints?—Nothing very close, certainly not.

367. But can we form any conclusion? Is the error not so enormous owing to re-coinage?—I think so. If you find you have a production of 20,000,000*l.*, and a coinage of 30,000,000*l.*, you may take it that 20,000,000*l.* is from new gold and the remainder from re-coinage.

368. So that practically we may almost ignore Mint statistics altogether in this connexion?—In everything except in the fact that they have coined so much money. You must take their figures there; I do not see what else you are to do.

369. And practically we must chiefly rely upon the statistics of production?—I think so.

370. We may assume that all the bullion produced at the mines is turned into coin, except that part of it which is used for industrial purposes?—Sooner or later.

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371. So that the chief corrections we have got to apply to statistics of production are statistics of the use in arts and manufactures. You have some facts to give us about that, have you not?—I have made some inquiries. I have got an estimate made by one of the best authorities, I think, on that subject, with regard to the quantity of gold and silver used in the arts and manufactures in this country; it is about $1\frac{1}{4}$ millions of new gold. When I say new gold, I mean gold that does not come from coin. The probability is that the total amount used may be $2\frac{1}{2}$ millions and that the remainder is from old gold re-melted.

372. But we rather come to the conclusion from answers you previously had given us, that the important thing to know is not how much comes direct from the mines, but how much is used altogether. We decided that Mint statistics were very little use, that what we had to consider was the total production, less the amount used in arts and manufactures; therefore the important figure for us to know is the total amount used in arts and manufactures, whether it is from gold melted down, or bullion direct from the mines?—I think you can only estimate it in this way, that if there is so much new gold, gold produced from bars, and so on, used in arts and manufactures, then there must be a certain proportion of other gold, because we know that there is constantly a re-melting of watch cases and jewellery of all kinds. That is constantly going on, therefore if there is a million and three-quarters of gold from production the probability is that there is at any rate one-third part more from other sources. That would give a total of about 2,200,000*l.* in the United Kingdom.

373. (*Mr. Cohen.*) Where can you get that figure of one and three-quarter millions as a reliable estimate?—Well, from the quantity of gold sold per week.

374. (*The Chairman.*) To the manufacturers?—To all sorts of people, by the people who themselves prepare gold for them. I asked Mr. Sellon, of Johnson, Matthey, & Co., metallurgists and refiners, to assist me in this matter, and after giving some time to the inquiry he said he should judge, by what they did themselves, and what other houses did in the same kind of trade, that the people who prepare gold for the trades, among them all, used about 8,000 ounces of fine gold per week. That is equal to 33,000*l.* per week, or 1,720,000*l.* a year.

375. (*Mr. Birch.*) But what proportion of that is in fine gold, and what in coins?—Nearly the whole is new gold.

376. (*The Chairman.*) Why is it necessary to prepare the gold for the manufacturer?—Because the people who use the gold, small jewellers and so on, only want gold in certain forms and in certain quantities. Then such houses as Johnson, Matthey, & Co. refine the gold coin, or whatever it may be, and prepare the gold in the way required for the different trades. That is to say, the watch trade, for instance, want a quantity of gold of 18 carats or whatever it is; Johnson, Matthey, & Co., and people in their position, prepare the gold and sell it to them in that shape. Then, again, they make fine gold, grain gold, which they sell to people who use it, and who alloy it themselves as they may want.

377. Fine gold is finer than Mint standard?—Yes, it is often as fine as $\frac{998}{1000}$.

378. (*Mr. Birch.*) Is it not a fact that the greater portion of the jewellery in this country is made out of melted coin?—No, it is not a fact.

379. Have you any information on the point?—I put that question to Mr. Sellon, and he said he did not think I should be far wrong if I said it does not exceed 10 per cent. of what is used. The quantity of cut sovereigns used is a question that perhaps you can tell more about than I could if you could be asked. I fully intended, but I have not had time, to ascertain from the Bank of England how many light sovereigns they sell to the trade in the course of the year.

380. (*The Chairman.*) How do you get from your

figure of 1,750,000*l.* to the figure 2,500,000*l.*, the total amount used in arts?—Well, I said that possibly one-third added would give the total amount.

381. Would that one-third be coin?—Yes, it might be; it might or it might not. It might be a good deal of coin, but also old jewellery and old watches, &c.

382. I was trying to reconcile this 2,500,000*l.* with 10 per cent. which I understood, according to your authorities, is the amount of coin melted down?—I think I must have been misunderstood.

383. Did you not say 10 per cent.?—What I said was, that the quantity of coin would probably not exceed 10 per cent., that is 250,000*l.*, out of the total consumption of 2,500,000*l.*

384. The difference between $1\frac{1}{4}$ and $2\frac{1}{2}$ is a great deal more than 10 per cent. The whole of that would probably be old jewellery and coin?—Yes.

385. (*Mr. Fremantle.*) But have your informants experience of what is done in other parts of England, such as Birmingham?—They supply Birmingham, Sheffield, and nearly everywhere, because, after all, London is the seat of the trade in gold, the centre of it; and nearly all the gold which is received in this country comes to London, and there it is prepared to go abroad or elsewhere.

386. Have they sufficient experience of what the practice of Birmingham is to say that only a very small per-centage of the work done in Birmingham is made from coin?—I think so; no one is likely to know better, at any rate.

387. (*The Chairman.*) I quite understand the sources of information you have in regard to the million and three quarters, but the sources of information that you have to bring you to the total of $2\frac{1}{2}$ millions are very conjectural?—I have none.

388. It is a guess?—That is so. It may be of interest to you in this relation to read this, which I copied out of the United States Mint Report. In the year 1880, the Director of the United States Mint estimates the amount of gold used in arts and manufactures in the United States as 8,634,193 dollars; that is to say 1,700,000*l.*; in 1881, 10,086,723 dollars, that is to say 2,000,000*l.* sterling; in 1883–84 he reckons it at 14,500,000 dollars. I do not quite believe that. That is equal to 2,500,000*l.* in gold. In 1884–85 it amounts to as near as possible 1,000,000*l.*

389. (*Sir T. Farrer.*) There is a rise from 1,700,000*l.* to 2,500,000*l.*, and then a sudden drop to 1,000,000*l.*?—Yes.

390. Do you know from what source the United States Mint got those figures?—They give the actual figures as to the quantities withdrawn from the Mint, which they assume to be for these purposes.

391. But I suppose in the first place they cannot be sure that the gold is to be used in arts and manufactures?—I think they cannot be sure, but they assume that. They give the detail of it.

392. And in the second place, they cannot be sure that the manufacturers do not get gold from other sources, a double source?—They say that no doubt they do, but these are the facts that they know of.

393. It is a fact that the American Mint puts the gold into these merchantable forms in the same way as the refiners do in this country?—Yes.

394. (*The Chairman.*) They give you gold of any purity?—They refine all the gold and make it quite fine. They make some gold into small bars of equal weight. Then, frequently, if people take out a large bar and want to divide it, they take their large bar to the Mint and get small bars of similar weight for it.

395. But will they give 18-carat gold to a watch-maker?—No.

396. Is there any trade in America corresponding to Johnson, Matthey, and Co.?—No doubt there is.

397. And judging by the English analogy, they would provide the American manufacturer with more than half the total amount produced?—No, I think not, because the system is altogether different with regard to the gold at the Mint there. Most people send their gold to be refined to the Mint there. They

do not employ private refiners. I suppose there are private refiners.

398. (*Mr. Fremantle.*) But the great bulk of the refining business, nineteen-twentieths of it, goes to the United States mint, and is there refined?—Yes.

399. (*The Chairman.*) Have you any estimate of the total amount used in arts and manufactures in the United States?—They give these figures as the total amount. In this particular year, 1883–84, when they estimate the amount used as $2\frac{1}{2}$ millions in the Mint report, if I remember right there is not much more than $1\frac{1}{2}$ millions given as being known to be for manufacturing purposes from the Mint.

400. Then, speaking broadly, you would say that the United States and Great Britain use between them only 5,000,000*l.* of gold in arts and manufactures?—Yes.

401. You would say that is a very rough guess; but that probably it is not very much out. What margin of variation would you allow?—I should not like to express an opinion on that point.

402. I do not wish to press you, but would you think that 20 per cent. would be a very unlikely amount of error?—I think it would be very unlikely.

403. We may fairly calculate that the error is less than 20 per cent.?—Yes. I have found a paper which I copied from the report of the Director of the United States Mint some years ago in which the amount used in arts and manufactures from 1874 to 1879 is given, and it averages very nearly 1,000,000*l.* in these years. You see according to what I have said before the amount has greatly increased of late years, but for those six years the amount was under 1,000,000*l.* sterling.

404. (*Mr. Birch.*) But I think you said the last year you mentioned before was 1,000,000*l.*?—Yes, 1884–85.

405. It has come down again?—Yes, but it had been very much larger in the interval. I also read, I am almost certain it was in one of the United States Mint Director's reports, that he estimated the consumption of gold throughout the world at that time at 11,000,000*l.* sterling. It struck me as being a greatly exaggerated figure.

406. (*The Chairman.*) I think Mr. Soetbeer estimates it at 12,500,000*l.* Have you seen that estimate?—No, I had not time to go through the book carefully.

407. (*Mr. Houldsworth.*) Does not the 1,000,000*l.* which you mentioned come after a very large year? What is the figure for the preceding year?— $2\frac{1}{2}$ millions.

408. (*The Chairman.*) Have you any figures with regard to the rest of the world—France, Germany?—None whatever.

409. India?—With regard to India there is this to be said, that the whole of the gold which goes into India, except the quantity of gold re-exported, has disappeared from the circulation of the world, that is to say, it is hoarded if you call it so. It is converted into ornaments and kept by the natives and will never appear again as gold in the world except as ornaments unless in the case of a famine; we know that during the last great famine in India we received great quantities of gold from India which were clearly melted from ornaments.

410. Why do you say that the United States estimate, which in this instance is under Dr. Soetbeer's estimate, is too high?—Because I think the probability is that there is much more gold used in this country than in any other country, and if you count on your fingers the countries there are which are likely to spend large amounts in gold ornaments, you would say that certainly England would have pretty well one third part of it. I mean to say, that out of the whole amount of gold used for ornaments, it is extremely probable that England would require at least one-third.

411. You do not base that on population?—No, I base it on the wealth of the country entirely.

412. Is the wealth of the country so very much greater per head than the United States?—I am not so sure about that.

413. (*Sir T. Farrer.*) Is the demand for gold ornament in proportion to the civilization and wealth of a country?—Except in the case of India, yes.

414. (*The Chairman.*) But the population of the United Kingdom is, roughly speaking, 35,000,000; United States, 50,000,000; France, 36,000,000; Germany and Austria, 47,000,000; those are all countries of great wealth and civilization, and the proportion of the English population is very small to them?—Yes, but on the whole in England, taking the amount spent on ornaments, the proportion would be greater than in any of those countries, except India. Besides England manufactures largely for exportation.

415. (*Mr. Cohen.*) The country that consumes most gold in ornaments in proportion to the population is Holland?—I was not aware of that.

416. (*The Chairman.*) You base your view more on a general conjecture than any precise information?—As I said, I have no authority for it at all.

417. Have you looked into the questions at all of loss by wear and tear?—No, that is a matter for bankers, which I am not prepared to enter upon.

418. Have you any remarks to make about the consumption of silver in ornaments?—I have a similar estimate with regard to that; probably 500,000*l.* a year is consumed in manufactures in one way or another in England. A very important part of it now is the conversion of silver into nitrate of silver for photographic purposes.

419. Have you any means of estimating the amount which is used for electro-plating and other manufactures?—Not separately.

420. But you think the figure of 500,000*l.* may be broadly relied on within rather large limits of error?—I had a letter this morning from a gentleman connected with Birmingham, from whom I asked the same question, and he estimates the quantity of silver used in Birmingham as from 300,000*l.* to 350,000*l.* a year. Now Birmingham is supposed to use about one half of all the silver and gold which is used in that manner, which rather confirms the estimate for the United Kingdom. It is a little greater than 500,000*l.*, but still that is near enough.

421. You have no estimates as to other countries except England?—Except the United States. According to the Director of the Mint, during the year 1874–79 there was a much larger proportion of silver ornaments, the figures ran 881,000*l.*, 847,000*l.*, 762,000*l.*, 755,000*l.*, 1,042,000*l.*, 1,195,000*l.* In 1880, 3,464,170 dollars, that is 700,000*l.*; in 1881, about the same amount, 700,000*l.*; in 1883–84, 1,100,000*l.*; in 1884–85, 1,100,000*l.*

422. Have you any explanation of the fact that, while the silver in the United States almost equals the gold used in manufacture, in Great Britain it is only about one-fifth?—No, I have no explanation of that.

423. Have you got any figures, or are there any figures, so far as you know, in existence, showing the stocks of the precious metals existing at different periods in the world?—No, I have not. I think at the time of, or just after the German war, Mr. Seyd read a paper at the Society of Arts, in which he estimated the quantity of silver and gold in the world at various times, but I have not had time to refer to it; but it is reported in the Journal of the Society of Arts of the time.

424. Are there any trustworthy figures showing the stocks of the precious metals existing at different periods, so that they could be compared with the statistics of trade, population, &c.?—No.

425. You think no forecast can be attempted in regard to the future production of the precious metals?—I should think that probably it will go on very much in the same way that it has for the last 20 years, a little more one year and a little less another, but without any very great variation.

426. We have had estimates before us which point to the conclusion that silver is not likely to be produced in large quantities at a lower price than 3*s.* 6*d.* Have you any facts bearing on that?—No, we can

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only say that some of the great mines, the two largest mines in Nevada, have given out altogether. They do not pay their way even at the present price of silver or even a higher one. I refer to the California and another mine, which produced enormous quantities of silver for some years, but which now do not pay their way, so I am told.

427. (*Mr. Cohen.*) Is that owing to the mines having given out?—The mines having given out, and the extraordinary depth they have had to follow the silver.

428. That is quite unconnected with the price of silver. If it went to 6s. it would not pay them?—They are carrying on the working of the mine even at a loss, in the hope that they may some day get a profit out of it.

429. It is a region probably rich in undiscovered silver mines?—Yes.

430. You could make no speculative adventure on a conjecture of that kind?—No, sir, I could not. I take it for granted that the most likely place for silver is in the western States of America still.

431. (*Mr. Birch.*) You were referring just now to the statistics of the United States as to the production of the precious metals. I believe those statistics are to be generally relied upon. The Government of the United States take a great deal of trouble to prepare them, much more than our Government?—They take a very great deal of trouble. I am not aware that our Government does at all.

432. You said just now that London was the principal place for the manufacture of jewellery. I thought it was Birmingham?—Not for the manufacture, for the preparation of gold for the manufacturer. Of course there are refiners at Birmingham who do a large business, I have no doubt, and at Sheffield also, but I think the greater part of the gold which goes into the arts and manufactures is gold that goes through London houses.

433. Another statement of yours was that you calculated that 1,700,000*l.* of uncoined gold was used for the arts and manufactures, and only one-fifth of melted coin?—What I said in regard to melted coin was that there was probably not more than 10 per cent. of coin used,—sovereigns I am speaking of now, used by manufacturers,—not more than 10 per cent. of the whole amount, but that probably one-third more than I have stated is got from other sources.

434. One-third of the new gold?—That makes a total of about 2,200,000*l.*

435. (*Sir T. Farrer.*) And did you mean that the 10 per cent., of the total amount was coin?—Yes.

436. (*Mr. Birch.*) That is not in accordance with the information which you wished to obtain?—That is very likely, but it does not always follow that light gold taken from the Bank goes to manufacturers. I fully intended to have made inquiry, and would have been prepared for that, but I have not had time.

437. Then you said the gold sent to India is immediately hoarded, and never sees light except in time of famine. We have heard just now from another witness that small bars of gold are very currently used in the bazaars of India in paying for large amounts. Are you aware of that at all?—I think it is extremely likely, but I do not know it.

438. (*Mr. Cohen.*) Have you any information as to the amount of gold and silver coin in circulation in this country?—There is so good an authority at the table that I do not like to say. I have always been led to believe that it was 100,000,000*l.* in gold and 20,000,000*l.* in silver.

439. But you have no information on the subject, —these figures are what you have seen on the subject?—Nothing.

440. Well, have you any idea in your own mind whether the amount of gold or silver coin in circulation has increased or decreased within the last 10 years?—I should not like to say, because although large amounts of sovereigns have been sent away, yet we have received large amounts of sovereigns from

Australia, and I have not had an opportunity of comparing the difference.

441. Have you any information as to whether any large amount of gold is locked up in the form of light gold by the country banks?—I have no information, but I have great certainty about it.

442. Very large amounts of light gold? They do not like to make loss upon it, and therefore they keep it in their own possession. Have you any idea of the amount of that?—No.

443. It could be obtained?—I have no doubt the banks would give the information if they were asked.

444. (*Sir T. Farrer.*) I think you said all the gold sent to India, except such as might circulate in small bars, is either hoarded or turned into ornaments, which comes to the same thing?—With the exception of exports, and in that statement you will find that there is a quantity imported and a quantity exported.

445. The difference is hoarded?—You may call that hoarded safely.

446. And in ornaments it is hoarded?—Yes.

447. That is the case in India. In a civilized country, is it not likely that some ornament hoarding might take place?—It is probable, but I am not aware of any country that would absorb any large amount.

448. It was rather with reference to your suggestion, that England, being a highly civilized and wealthy country, used the largest quantity of gold for purposes other than coinage; but does it not show us that a semi-civilized country may really absorb a larger quantity of gold for purposes other than coinage than a civilized country? Is it not the tendency of the earlier stage of mankind to be fond of using gold for ornament?—Yes, when they get it; but in India the population is so great that, after all, it is an infinitesimal sum per head if you come to put it in that way.

449. I was merely suggesting that as a possible explanation of Dr. Soetbeer's figures or the United States figures?—His figures then would be too small if he included those. I am not sure if the figures there would show it, but I think probably there has been 3,000,000*l.* a year for some years past absorbed by India, so that, added to what I was thinking of for civilized countries, would make it even more than that.

450. (*Mr. Fremantle.*) Is there any means of ascertaining, do you think, with accuracy, or even approximately, what number of sovereigns are used by jewellers and others?—I should doubt the possibility of obtaining that.

451. Therefore you would be prepared to hear that a very large amount of coin is used in addition to the estimate that you gave us just now?—A fair amount; nothing very much, I should think.

452. (*Mr. Barbour.*) Are you aware that there is a considerable use of gold in India for manufacturing purposes, where it is entirely lost, or almost entirely lost?—That is the case in all manufactures, I think; in all ornaments there is a great deal.

453. In ornaments it is partly lost, but it is not altogether lost; but in the manufacture of cloth, gold thread through cloth, that is practically lost?—Yes. But a great deal of that is recovered, ultimately; because I have constantly seen large parcels of old lace and tassels and things of that kind sent to this country, in which there was probably one-tenth part of gold, the rest cotton. That was burned and the gold recovered. I do not think there is any very large amount lost, because it is recovered in that way.

454. (*Mr. Fremantle.*) It would be a question of per-centage, I suppose?—Yes.

455. (*Mr. Barbour.*) But if the holder of the cloth or lace thinks it worth his while to send it back for recovery it is recovered, but if he does not think it worth his while, well, then it is lost altogether?—As long as it remains in use it is not more lost than any other gold kept as hoarded.

456. It is consumed in time?—Well, it is worn out. You cannot say; there may be a certain loss there, but you may depend upon it there are people over

there who go about and buy up these old shawls for the purpose of getting the gold out of them. You may depend upon it they are quite wide enough awake not to actually lose what little gold there may be. It is like the old shops in London, where they will buy anything.

457. I was told by a gentleman in the Punjaub that he attempted to recover the gold from the gold lace used by the native officers in their uniforms, and that he found that it did not pay?—That is possible. It did not pay him, especially if he had to pay for it.

458. (*The Chairman.*) Do you think that much gold passes between this country and other countries which is not taken note of in the general official returns?—I should say not much; there is some.

459. Is there not a certain amount smuggled between layers of silver?—Sometimes a bag of gold is put into a box which contains silver, and is all

reported to the Custom House as silver, but I do not think it is very general.

460. You think it is not a very important proportion?—No, I have known people who have done that kind of thing, but I do not think it is a general thing.

461. (*Mr. Birch.*) I suppose a good deal of gold does pass that is not taken official notice of, I do not mean fraudulently?—A good deal does, pass in the passengers' pockets.

462. (*Mr. Barbour.*) For instance, a case in point. I brought 65 sovereigns with me from India the other day which never appeared in any return?—Multiply that by 100,000.

463. (*Mr. Birch.*) A great deal of gold went over to Paris in that way. A person paid his passage there and the simple freight on the gold would have been considerably larger than the passage money?—Oh, I have no doubt that has been the case.

The witness withdrew.

Adjourned till to-morrow.

Third Day.

Friday, 26th November 1886.

PRESENT :

THE RIGHT HON. A. J. BALFOUR, M.P., the CHAIRMAN, presiding.

MR. D. M. BARBOUR.
MR. J. W. BIRCH.
MR. L. L. COHEN, M.P.
SIR T. FARRER.

MR. C. W. FREMANTLE.
MR. W. H. HOULDSWORTH, M.P.
MR. BULLEN SMITH.

MR. GEO. H. MURRAY, *Secretary.*

Mr. ROBERT GIFFEN examined.

464. (*Chairman.*) Mr. Giffen, I think you were examined before the Parliamentary Committee appointed in 1876 to inquire into the depreciation of silver, and that you then gave some evidence upon the question of the production of the precious metals; is that not so?—At that time I gave some evidence with reference to the production of the precious metals, not with reference to the production of silver so much as with reference to the production of gold, and I gave various statements of different kinds on the subject that that Committee was inquiring about.

465. Can you give us any statement which would show the difference between the available information at that time and the available information at the present time?—I think that since that time there has been a great improvement in the state of current information with regard to the subject of the precious metals, and with regard to other matters pertaining to this question. With regard to production, I found, in 1876, when I was about to give evidence, that there was no very good continuous statement with reference to the production of gold in existence. Very few people had taken the trouble to do much regarding it, and there were no statements such as that which Sir Hector Hay, for instance, put before the Commission, in existence generally with reference to the production of gold. There had been various scattered statements of different kinds. I had prepared myself for the "Economist," in 1872, not a statement of the production of gold, but a statement of certain particulars which would give people some idea of what the production would be. I stated quite candidly what the figures were which I gave, and these figures were intended to suggest to people what

the general result of an investigation might be, and not themselves to be an estimate of the production of gold. That is all explained in the evidence at the time. The figures which I got I may say were practically official figures with reference to the production in Russia. As regards the United States, the figure which I took was the deposits of gold of domestic production at the United States mints. It was said to be a figure a good deal less than the absolute production, but, at any rate, it was a definite figure, as it was known what amount had been deposited at the mints. Then, with regard to Australia, the figures which I put together were those of the net exports of gold from all the Australian colonies put together, plus the estimated coinage of the Australian colonies. At the beginning of the period the coinage of the Australian colonies, not being legal tender in the United Kingdom, was mostly kept at home, so that the two things seemed to give an idea of what the total production of Australia might be considered to be. And these three things, the production of Russia, the production of the United States, and the production of Australia, being the principal matters, what I supposed in 1872 was that these figures would give some definite facts from which people could form tolerable estimates, there or thereabouts, as to what the production might be. That was the best thing I thought I could do readily in 1872, and I put that with the figures continued before the Committee of 1876. But it was not intended to be an estimate of the general production. Sir Hector Hay put before the Committee an estimate of the production which he had drawn up, I think, in the previous year, with various amendments, and, as far as I know, that was the first

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general estimate, covering the whole period from 1851, of the production of gold and silver. I had only made an attempt relating to gold; Sir Hector Hay's account related both to gold and silver. Since then the information has advanced a good deal, and Mr. Soetbeer published, in 1879, a most elaborate history of the production of the precious metals,—I have got the book here now,—from the beginning of time till the present, in which he investigated the whole subject at all the periods, and especially the modern period, and gave his notion of what the production was from time to time, and especially in the recent years. More lately, Mr. Soetbeer has published another volume, and he has published a second edition of that volume this year, containing materials for the illustration and decision upon the economic relations of the precious metals, and the question of the valuation, in which he continues the estimates of production which he made in 1879, and gives a great many more figures as to prices, as to bank reserves, as to circulation, as to the use of metals in arts, and various other matters—a systematic study of the question. And I have observed also, that there are various books, such as that of Mr. Ottomar Haupt, a well-known authority on the continent, and Mr. Laughlin, who has written a history of bi-metalism, in the United States, besides the reports of the various Commissions which have been sitting, all of which have added greatly to the information upon the subject since 1876.

466. So that you are of opinion that now we are in a very different position for forming an estimate of the production of the precious metals than we were in 1876?—I think, with regard to production the matter is now very greatly simplified in this way. It is still quite true that the three chief places which you have got to consider are those which I have named, Russia, the United States, and Australia, for all of which there are now substantially official accounts.

467. (*Sir T. Farrer.*) That is as regards gold?—With reference to gold; and to some extent it is also true with reference to silver, if you substitute the phrase North America for the United States. With regard to production in Russia you have practically an official figure, and I observe that, although, when it comes to be stated in values and weights there are slight discrepancies, they are only such discrepancies as would arise from people using substantially the same figure to begin with, and its getting translated in different ways into the weights of different countries and the money of different countries. Still, when you get to the bottom of it, it appears to be always nearly the same figure, or a figure almost exactly the same.

468. (*Chairman.*) So that all Russian estimates are based upon Russian official figures?—Practically so. I may add that I have endeavoured to find out the figure in Russian official books, but have not been successful. But in the mint report of the United States you do find these figures as to the weight of gold produced in Russia communicated officially by the Russian Government to the United States minister at St. Petersburg. Then, with regard to Australia, instead of there being now much difficulty about the matter, you have got in the mint report of Mr. Fremantle an estimate of the production of Australia, based upon the official estimates of the different colonies themselves, and that figure which Mr. Fremantle gives is the figure which Mr. Soetbeer gives, so that it always comes round to the one official figure. I have not had an opportunity of comparing what Sir Hector Hay has done in the figures he gave you yesterday, but I assume that, practically, it would be the same thing. At any rate that figure is in the mint report. Then, with regard to the United States, the official figures have now come to be practically those of the United States Director of the Mint. The Mint authorities in the United States have taken the trouble to go into the subject, and they have made an estimate which has been continued for a great many years, and that is practically the figure which Mr. Soetbeer gives. Sir Hector Hay told you

yesterday that his estimate is rather less, and that appears to be the case, not a great deal, I think it amounts to a difference of 10,000,000*l.* sterling between 1851 and the present time, compared with what the official figures are, but I am inclined to think that on the whole the official figure is really the better estimate.

469. You do not lay much stress on the objection that Sir Hector Hay brought to the official figure—that it was the interest of the producers to give an exaggerated estimate to the United States mint of what their mines were producing?—Well, the point which occurred to me when Sir Hector Hay was giving his evidence was that to some extent it is discussed by Mr. Soetbeer himself, the same question. And there is another point with reference to the matter that it is not quite safe to take the figures from Messrs. Wells, Fargo, and Company in respect of one matter, and that is, that of late years especially it has been found that the United States produce gold and silver in one; that is to say, the article produced is both gold and silver. It is called silver there, and would be entered by Messrs. Wells, Fargo, and Company as silver, but when it comes to London it is divided up into two things, part is gold and part is silver, and of late years the United States mint authorities have been taking care to make some allowance for the character of this particular article that is extracted from certain mines, and to credit so much to gold and so much to silver, which is not a thing I believe that would be done by Messrs. Wells, Fargo, and Company, and that is a reason for attaching rather more value to the Government statement than to the correction, I think, which Sir Hector Hay has made upon it.

470. But am I not right in saying that that would make the error the other way?—Sir Hector Hay as regards gold is below the estimate, and it is with reference to gold I am speaking, and that would explain how in some way he might be below, and yet there was no reason for disbelieving the official estimate. At any rate the discrepancy in my view is not at all material in a question like this as regards the United States.

471. It is, perhaps, not worth pressing the point, but is it not true that Sir Hector Hay's estimate of silver was also below the United States mint?—I believe that was the case.

472. And the source of error you have just mentioned ought to have made it bigger?—I am not quite sure about that, because to some extent the taking an account of all that metal that was considered silver and estimating the gold in it would not diminish the silver very much, because the weight of the gold is hardly material, although the value is about equal. The weight of the gold would not make much deduction from the weight of the silver. I may say that, thinking it would be of interest, I have brought with me here the statements of Mr. Soetbeer with reference to production, as it might be convenient to the Commission to have these put in. Of course it would be easy to have them put in from Mr. Soetbeer's book themselves, but I thought it would save trouble, perhaps, if I were to put them in now. One is a statement of the whole production of gold and silver for a long series of years, with the per-centage worked out of the proportion of gold to the proportion of silver; and then the other is a more detailed statement, both in weight and value, of the production of both gold and silver at the present time, and I propose to put in these three statements. (*See Appendix III.*)

473. I see you have given the weight in kilogrammes?—I have put it in exactly as Mr. Soetbeer gives it. Of course it could be translated and put in any form that may be thought desirable for the Commission, but there is no great difficulty in dealing with it, for this reason, that 1,000 kilogrammes are practically equal to an English ton, and that is a very convenient way of translating the one weight into the other.

474. I see no great object in turning the kilogrammes into pounds, or tons, but there might be some convenience in turning the measure of value into English sovereigns?—The mark is as near as possible an English shilling, so there is no great difficulty in working the values in that way.

475. You have now given us an account of the sources of information applying to the three great producing countries; have you anything to say with regard to the sources of information as to the rest of the world?—Well, with reference to the rest of the world, I may say that with regard to Mexico and South America, which Sir Hector Hay referred to yesterday, there was certainly some difference between Sir Hector Hay and Mr. Soetbeer upon that point, but if Mr. Soetbeer's book is looked at I think you will find that he has gone into the matter very carefully indeed, and that he is quite aware of all the matters which Sir Hector Hay mentioned, especially he is aware of the fact that the chief produce of Mexico and South America is brought to the United Kingdom, because he not only mentions the fact, but he gives the actual figures of the imports into the United Kingdom from those countries, and he has evidently taken care to make some investigation of the subject. On the whole, I see no cause to reduce very much the estimate which Mr. Soetbeer has given upon that point. I find, however, that the chief difference between Mr. Soetbeer and Sir Hector Hay, as far as the statement which Sir Hector Hay put before the Committee in 1876 is concerned, arises with reference to what are called other countries, for which, as regards gold, Sir Hector Hay put down at that time the round figure of half a million sterling for many years, and of late years Mr. Soetbeer's figure is two and a half millions sterling. I think, on the whole, that there is some reason to believe that Mr. Soetbeer's estimate has some foundation. He has gone into the production of a great many small countries somewhat minutely, and, at any rate, he explains pretty clearly in his book what he has really done, so that people can form their own judgment about it. But the point I wish to bring out now is, that the main difference between Mr. Soetbeer and Sir Hector Hay arises with reference to this small part of the production; that substantially with reference to Russia and North America and Australia they, practically, not only are in agreement, but to a large extent take the same figures which are official.

476. The rest of the world is more or less conjectural?—I do not know that it is altogether conjectural; if you are careful to look at all the special statements which are made from time to time, it will appear that there is something more than conjecture. Part of the production in question is European production, especially silver. There is a considerable production of silver in Europe, and Mr. Soetbeer has taken the trouble to put all that together most minutely. Then, with reference to gold, a very considerable part of the miscellaneous production is from Africa and outlying countries. The one point which Mr. Soetbeer seems to have omitted, and it is mentioned by himself quite fairly—one of his great merits is, that he is perfectly candid with reference to all the information that he gives—he omits giving any estimate for China which, I believe, is to some extent both a gold producing and a silver producing country, though, of course, no one one knows how much China really produces.

477. And nobody has been able to form even a rough estimate?—I do not think that any attempt at an estimate has been made. If one reads the books of some travellers as I have done, you find reference a great deal to worked out mines of silver and gold in China, and you do not get so much evidence as to what is actually being done. But, I may say, that I have got here a statement with reference to the import and export of gold into and from China. The Chinese official figures are hardly sufficient to enable one to make a statement of this kind, in fact, they are very unsatisfactory on the subject of the imports and

exports of bullion. But I have taken the trouble to examine the statistics of the chief countries with which China trades, which I take to be the United Kingdom, France, British India, and the United States, and by working the figures in the reverse way, I have obtained some idea as to the movement of bullion between China and those countries. I am speaking of gold at present. I have taken the trouble to work it out, and, according to this, it would seem that China exports on balance to the chief countries it trades with every year from about 1,000,000*l.* to 2,000,000*l.* sterling of gold. I think it is a little over 1,000,000*l.* sterling on the average for a great many years, going back to about 1864, the China exports of gold.

478. A million a year to all countries?—About 1,000,000*l.* a year, and this is a figure which Mr. Soetbeer does not take account of, as far as I can judge in his estimate of production, so that even if his estimates are an over estimate, there would be this element of China to be taken into account, which may or may not be material. Of course, one cannot tell whether China is exporting out of a very ancient store, or whether it may not get gold from some other country that we have not thought of, but it seems to me that, in fact, China may contribute to the general gold market of the world by a certain export.

479. I suppose an export of an even amount over a large number of years would imply that China produced gold to that amount in excess of her own requirements; it would indicate that?—My own impression is that China does produce gold to some extent. Of course, how much, it would be very difficult to say. I propose to put in the statement for what it is worth. (*See Appendix.*)

480. (*Mr. Barbour.*) Is that prepared from the returns of the United Kingdom, France, and America, or the Chinese returns?—The returns of the United Kingdom, France, British India, and the United States.

481. So that, if there was any large import or export of gold between China and the islands in the Indian Ocean it would not appear there?—It would not appear there, but if there was a net balance coming from the islands in the Indian Ocean, it would be much the same thing, because we do not get any account of that production so far as I know, anywhere else.

482. (*Chairman.*) Then, having carefully considered all Dr. Soetbeer's statements and tables, as a statistician, you are convinced that, on the whole, his estimate is the best we have to go upon, and may in that broad sense be relied on?—I have no doubt that that is so, that you may take it as the work of a very able and sincere statistician, and that, at any rate, if you have any doubt about the matter, he supplies you with almost all the materials that would be necessary to form a judgment of your own. I mean, he is quite candid and sincere, and the book contains most valuable materials, whether you may differ from his judgment or not.

483. And, I suppose, you would be of opinion, that taking all the doubtful elements into consideration, the error in the total result cannot exceed 10 or 15 per cent.?—I do not think it can exceed 10 per cent. with regard to production.

484. Have you any similar remarks to give us with regard to the production of silver?—I have not followed the question of the production of silver at any time as I have followed the question of the production of gold. The reason for my knowing a little more about gold than about silver was the fact that I had to write a great deal about it in 1872, and I prepared a great many tables upon the subject with reference to gold.

485. That would exhaust all that you desire to tell us to-day on the subject of production?—I think, if I might say so, with reference to the evidence which I gave in 1876, there is one point to which I may draw attention, as it was considered a subject of general interest at that time, and has been the subject of a good deal of observation in the writing upon

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the subject. It is this, that from about 1850 to 1870, the proportion of gold produced with reference to silver was abnormally large. If you go back to the earlier part of the century, you find that the proportion of gold to silver was—I really forget what the exact figures were, but that the proportion of gold to silver was about one to three in the early part of the century. That is what it comes to. That is to say, gold was about one third of silver, taking them at the values at which they were represented. Later in the century, that is between 1820 and 1840, the proportion was about one to two in value. The figures are all stated in the evidence which I gave in 1876, and I wish now to use. The proportions also appear in the Table in Mr. Soetbeer's book I have referred to.

486. I see you stated in 1876 that the annual proportion for the whole world at the beginning of the century was very nearly three to one?—Yes, three to one, that is, three of silver to one of gold down to about 1820 and then about two to one down to about 1840. After 1840 for about 10 years the production of the two, according to the current values then, was about equal. After that, however, the production of gold was abnormal for about 20 years. There was a great production of gold, and the figures came to be practically very nearly four of gold to one of silver, and then three of gold to one of silver.

487. (*Mr. Houldsworth.*) What years were those?—From 1851 down to about 1865. But since then the point which I am going to call attention to now is this, that the proportion of the production of gold to the production of silver has diminished as well as the amount of the production of gold, and I wish to mention the figures from that table of Mr. Soetbeer which I have given you. In 1866–70 the weight of gold produced, with reference to the weight of silver produced, was as follows: 12·7 per cent. was the production of gold of the two together in weight. Then in 1871–75 the production of gold was 8·1 per cent. in weight of the two. In 1876–80 it was 6·6 per cent., and in 1881–85 it was 5 per cent. only of the total weight of gold and silver produced. And, of course, the effect of that is that when you come to estimate them in values, the proportion of gold to silver has also fallen back, and they are now practically, according to Mr. Soetbeer's table, about equal again, but that, of course, is at the lower value of silver which he gives.

488. (*Chairman.*) They have reverted, in fact, to the condition in which they were between the years 1841–1850?—That is so.

489. Turning now from the question of production to the question of the employment of the precious metals, could you give us broadly your view of the increased demand which has been made for gold?—The increased demand for gold as compared with what it was just before 1872 appears to me to have consisted first of all of the German demand, next of the American demand, then a certain demand for Holland, and, perhaps, I should add along with that for the Scandinavian countries as well, and then a demand for Italy, all of which, put together, I have roughly estimated as about 200,000,000*l.* sterling, and it would be, perhaps, not very difficult to give some detail with reference to each. With reference to Germany then, the actual efflux of gold to Germany commenced in the year 1871. Germany began to draw in gold with reference to its coinage, and eventually it coined about 96,000,000*l.* sterling in gold, of which about 5,000,000*l.* consisted of re-coinage of gold which had been in existence in Germany before that. I may state that there was a very curious discrepancy between the estimates of the gold coinage of Germany, and what in fact the coinage of Germany turned out to be, because the estimate had been that the coinage of gold for Germany before 1871 had been something like 27,000,000*l.* sterling, but when the gold was withdrawn and demonetised, the actual amount that was withdrawn and demonetised was under 5,000,000*l.* sterling. So

that of the whole of the 96,000,000*l.* of gold which has been coined in Germany, you may say that upwards of 90,000,000*l.* was taken from other countries.

490. What was the cause of the large discrepancy of which you speak?—I do not say that it is exactly a discrepancy, but the fact was that it was known from mint records and otherwise what the coinage of the different States in Germany in gold had been, and that figure was something over 26,000,000*l.* sterling, but in point of fact, when you came to withdraw that coinage and to demonetise it, you only found that you had to operate upon 5,000,000*l.* sterling, which seems to show that the amount that has actually been coined is very little indication of what coin may really be in use in circulation or hoarded in a country.

491. That is a fact that was clearly shown, also by the circumstance that the amount of coinage greatly exceeds the amount of production?—All that is also shown generally, but I thought I would call attention to that particular point in passing, as it is not often that there are such opportunities of observing as there was in this case, when all the money was withdrawn and demonetised.

492. Do you think it would be fair to take that as a guide to what happens in other countries, and to divide the total coinage by five, in order to ascertain the actual stock roughly?—Oh, I cannot say that at all; this is merely a particular instance.

493. (*Mr. Fremantle.*) Was there any special reason in Germany why the amount actually withdrawn was so small?—I think one reason perhaps might be, that gold was not the standard money of Germany before; that silver was the standard money, and gold was what was called monetary merchandise more than standard money itself.

494. (*Mr. Birch.*) The exchanges would probably have been against Germany, and thus the gold would have been exported?—That might be so.

495. (*Mr. Barbour.*) Was there a fixed ratio between gold and silver?—It is very difficult to say exactly, there were so many different States in Germany; but I think there was no fixed ratio. Silver was the standard money.

496. And the ratio between silver and gold varied?—And the ratio varied according to the market rate. I am not quite clear what was the market rate, but I know that people who were considered to be acquainted with the facts, always spoke of France as a bi-metallic country, and of Germany as a silver country.

497. (*Chairman.*) We may take it that 90,000,000*l.* is the amount which Germany has taken on balance out of other countries since 1871?—I may go on with reference to that, and say, that in point of fact Germany cannot be considered as having withdrawn on balance from other countries so large a sum as 90,000,000*l.* sterling, because within three years after that coinage in Germany commenced, that is, before 1875, it had begun to be noticed that a certain amount of new gold was being exported.

498. Practically, then about 80,000,000*l.* sterling in all would be about what the demand for Germany has been for new gold from other countries, not necessarily, of course, altogether for coinage, but that is the amount which Germany has taken on balance out of other countries since 1871?—Yes; that is about the figure which is arrived at. I may say that the demand altogether was not merely in order to enable Germany to substitute gold for silver in its coinage; but that there was a great banking reform going on at the same time, and part of that reform consisted in the extinction of notes of small denominations. The reform took place in the year 1875, and at the beginning of that year it was estimated that something like 27,000,000*l.* sterling of notes of small denominations, under 100 marks that is, were in circulation, and these were all extinguished in the course of the year 1875, and my own calculation is that from 10,000,000*l.* to 20,000,000*l.* sterling of those notes must have been replaced by coin. The bank note circulation in Germany has

never been quite so high as it was just before 1875. It was then about 70,000,000*l.* sterling, and I think, even now, it is about 55,000,000*l.* sterling, and it has been a good deal less.

499. (*Sir T. Farrer.*) Were they all replaced by gold, or some by silver; some of them were very small?—Of course it is impossible to say whether they were all replaced by gold or by silver, but I looked into that point a little also, and the notes for 1*5s.* and under were something less than 10,000,000*l.* sterling. The next denomination of notes was about 30*s.* sterling, and I should say that a considerable part of the notes extinguished must have been replaced by gold and not by silver, owing to the amounts for which they existed. At any rate, I think I may give the reference to the figures. They are in *The Economist* of the 20th February 1875. You will find a statement of the character of that 27,000,000*l.* which I have told you about, what the different denominations were. I remember writing about it myself at the time, and it would have some effect in making a demand for gold, and not simply for silver.

500. And you estimate that demand at about 20,000,000*l.*?—From 10,000,000*l.* to 20,000,000*l.* Of course it added to the general demand for Germany. It was not merely the substitution of gold for silver in Germany, but the change with reference to the paper as well.

501. (*Mr. Birch.*) With regard to that 80,000,000*l.* of gold that was coined, have you any information as to what was re-exported of the new coinage. At one time we held a little, and there was a good deal at the Bank of France?—I could go into detail if it was required. I believe the German figures on this head are not quite satisfactory as to imports and exports, partly because the German empire had some trouble in establishing a department of statistics for imports and exports after the empire was formed, and it is not, I think, till about 1879 that the statistics of imports and exports became tolerably good. But there is no doubt a good deal was exported, and that was just one of the points I was mentioning. But I can only follow on this head the estimates of people like Mr. Soetbeer who have looked into the subject, and you will find a great deal about it in these books of his that I have referred you to.

502. (*Chairman.*) Then you would summarise the demand of Germany in this way, that she engaged in two reforms at the same time, both of which required gold, one a monetary reform, another a banking reform; that from the total amount of gold required for those two purposes we should deduct in the first place the gold recoined, amounting to about 5,000,000*l.*, and then the gold that was exported between 1872 and 1875?—Between 1872 and 1885; that goes down to the present time.

503. Making those two allowances, your general conclusion is that the demand that Germany made upon the gold stores of the world reached about 80,000,000*l.*?—About 80,000,000*l.* in round figures is the sum which I have arrived at.

504. Then could you give us any particulars with regard to the demand of the United States?—Then with regard to the United States I have looked into that subject at different times, and the conclusion to which I have come is, that starting from the year 1875, which was about the time that the law for resuming specie payments in the United States was passed, down to the present time, the United States has taken gold to the extent in round figures I should calculate of about 100,000,000*l.* sterling. This has constituted an entirely new demand as compared with anything that was in existence before that. And I may say that there seems to be practically little doubt about this figure, and anyone could easily follow up the calculation in this way: If you take the production of the United States since the date I mentioned, since 1875, you find that it comes to about 75,000,000*l.* sterling, and then you find when you compare the imports and exports of gold bullion in the United

States, that on balance since that date the United States has imported from other countries from 30,000,000*l.* to 35,000,000*l.* sterling, or rather more. And these two things together come to about exactly 108,000,000*l.* sterling, which the United States would appear to have absorbed in that time. That is one mode of calculating. Then I observe that there are various estimates by the United States authorities themselves, the Mint authorities and others, with special reference to coin, and some of these would seem to show that about 100,000,000*l.* sterling has been added to the coin of the United States. I prefer myself to take the simple mode of calculating what the production has been in that time, and the balance of imports and exports, and that shows that the United States has absorbed certainly about 105,000,000*l.* to 110,000,000*l.* sterling, and this was an entirely new demand.

505. (*Sir T. Farrer.*) Had not some of that gold been previously exported from the United States at the time of their war and the suspension of specie payments?—That is quite possible, but I am speaking with reference to a new demand as compared with the period just immediately before. And I may say that from 1862 or thereabouts down to 1875 the balance of imports and exports of the United States shows that the United States exported in that time, on balance I am speaking of, almost exactly the whole amount of its production. There is no record as far as one can judge of any part of the production of that period having been retained in the United States. There is apparently an equal balance between the imports and exports, so that from 1875 onwards you have the United States, which previously sent away all the gold it produced, not only taking all the gold it produced, but taking something from the outside world as well. And I may say, as a matter of recollection, as a thing that was perfectly well known, that in several years after 1875, viz., 1877 and 1878, and 1879, it was quite well known in London that America was taking large amounts of gold from both London and Paris. It was a familiar and a very prominent fact in the money market at that time.

506. (*Chairman.*) Your method of calculation would be partly invalidated, would it not, by any use that was made of the precious metals for purposes other than coinage in the United States?—Yes; and that is a point which seems to me of great importance in reference to this subject. It is very easy to calculate in the way that I have done what the demand for the United States has been in that time, but then I have tried to follow it up in this way,—where is the gold which has gone to the United States? This is comparatively a new figure which we are dealing with, a new sum, and we know with tolerable certainty that the United States has consumed this amount in some form or other, but when you come to look into the figures again all that you can see of it, as far as I can judge, is about 50,000,000*l.* sterling. You can see that the reserves in the United States Treasury and in the chief banks in the United States, the National banks, have increased about 50,000,000*l.* sterling. Before that they were about 25,000,000*l.* or 27,000,000*l.* sterling, and now they are about 75,000,000*l.* sterling, showing an absorption of 50,000,000*l.*, but where the other 50,000,000*l.* have gone to, I confess I am quite unable to give you any idea. If you go to the United States—I do not know if Sir Thomas Farrer can tell you anything about it, but I was there two or three years ago, and found there was no gold coin in circulation at all.

507. (*Sir T. Farrer.*) I had one eagle given me. I was in a shop in New York, and I had it given me in change the last day I was there?—I had the same experience; I only had one gold piece all the time I was in the United States, and as far as I could see, in the eastern part of the United States there was no gold in circulation, so that if it was not in the banks, where was it? Then I find that there are various estimates by the authorities in the United States as to what has been consumed in the arts, and one gentleman, a Mr. Mühlemann, of the United States Treasury, makes an

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estimate in the appendix to this report of the Secretary to the Treasury to the effect that about 30,000,000*l.* sterling had been consumed in the arts between 1873 and 1885. I think in about 12 years his exact figure is about 36,000,000*l.* sterling, or as near as possible 3,000,000*l.* sterling per annum. And he says that that accounts for 30,000,000*l.* sterling of the difference, and that the whole amount of gold in circulation in the United States as distinguished from what is in the hands of the Treasury and the banks is about 20,000,000*l.* sterling; but whether it is 20,000,000*l.* sterling, or any other figure, I confess I am quite unable to say.

508. (*Mr. Houldsworth.*) There is one point I do not feel quite satisfied about. I think you stated that before 1875 the exports were 75,000,000*l.* and the imports 75,000,000*l.*?—No; what I stated was, I think, that before 1875 the exports on balance from the United States were equal to the production at home.

509. Well, the production was 75,000,000*l.*?—At that time it would be about 75,000,000*l.*

510. And then 75,000,000*l.* was exported, I understand?—That is the total amount for the years from about 1862 to 1874 or 1875.

511. (*Chairman.*) So that, upon the whole, you base your view of the demands which America has made upon the gold of the world, rather upon a study of the balance of export and import, than upon any consideration of the actual amount of coinage in the country, or the balance lying at the banks or in the Treasury?—I may say that it is based upon that consideration mainly, but I have also looked into the statements of the different authorities in the United States, because they give different calculations, and that is the result of it. There is no substantial difference as to the fact of that amount having been absorbed in some way, but then some of the authorities would consider that a great deal of it has practically been taken for the arts, and I see no sufficient evidence of that myself, and yet I am not able to say precisely what has become of the whole amount which seems to have been taken by the United States.

512. Do you know whether the estimates made by authorities of the mint of America are based, like your own, upon a comparison of exports and imports?—There are two estimates substantially as far as I can judge; one is based upon a statement with reference to coin only, and that is, they show the coinage of the United States mint for the period that I have been naming; they begin there in 1873. Then they deduct all the recoinage in that time; then they deal with the balance of imports and exports of coin only, and that shows an increase of coin amounting to about 90,000,000*l.* sterling when they deal with the subject in that way. But that of course would still be subject to the observation that a part of that coin may have been used in the arts. Still when you deal with coin alone, it seems to show an increase of about 90,000,000*l.* sterling. When you deal with coin and bullion together as I have done, it seems to show an increase of about 15,000,000*l.* to 20,000,000*l.* sterling more.

513. (*Sir T. Farrer.*) Is there any estimate in these reports of the quantity of gold which is used in California?—Not specially, but Mr. Mühlemann, of the Treasury, seems to estimate the total amount in circulation in the country outside of the banks as about 20,000,000*l.* sterling.

514. (*Chairman.*) But how does he get at that estimate?—How he gets it I cannot tell, because he does not go into detail. But still there is that difficulty that you do not see the coin in circulation.

515. But, on the whole, you think that all these lines of inquiry point to a sort of average of 100,000,000*l.*; that we may take that without much risk of error as the demand for the United States?—There is no doubt about that. That is a new demand.

516. (*Sir T. Farrer.*) Is there any reason why there should not have been a greater demand for the arts after the resumption of specie payments than

before?—I think not after the resumption of specie payments, but I could quite imagine that at the time the war was going on, a time of great pressure, it would have been almost considered bad taste to wear ornaments very much, or anything of that kind, and that really there was a large suspension of the use of the precious metals in the arts from about 1862 down to about 1870. I should think that is extremely likely, and you may have had a larger use of the metal in the arts since that time.

517. (*Chairman.*) Then Holland?—Then with regard to Holland, that is not a very material matter, because Holland is not a large country, and is not a large consumer of the precious metals in the form of coin in any way. But the change in Holland was to the effect that the free coinage of silver was suspended, and I would not be able to say whether in point of fact, since then, Holland has formally adopted a gold standard or not.

518. Practically, it has done so?—The practical effect of what it has done is perhaps the same, except that as the old coinage of silver is not withdrawn, but circulates at full value at the old ratio, less gold is used than if there had been a more complete substitution of gold for silver, as in Germany. The Scandinavian countries have done something of the same kind, but I have not formed any estimate of the exact sum all these countries have taken, because it is not a very large amount altogether.

519. Do you include Java in Holland?—Java would be included, because Java and Holland have exactly the same currency.

520. (*Mr. Barbour.*) Gold is freely coined in Holland, I think. It would be coined if brought to the Mint?—Yes, but not silver.

521. Java has a gold standard?—Yes, but not gold currency much.

522. (*Chairman.*) Then Italy is the last country?—Italy had comparatively a recent operation, and Italy raised a loan of 16,000,000*l.* sterling to enable her to resume specie payments. Practically the whole of that amount, within the last two or three years, was taken to Italy, and has not come back, at least not to any material extent.

523. (*Mr. Birch.*) I think the loan was 20,000,000*l.*, not 16,000,000*l.*?—I think, if my memory serves me right, it was 16,000,000*l.* effective. It may have been 20,000,000*l.* nominal. In any case the gold that was taken was 16,000,000*l.* sterling. [I find, according to Burdett's "Official Intelligence," that the issues of Rentes at the time in question were about 29,000,000*l.* nominal, the issue price of the first half being 90, and of the second half 88, but the effective amount required to purchase gold for resuming specie payments was that here stated.]

524. (*Chairman.*) For the purpose of our inquiry, it would be important, would it not, to distinguish those cases in which the new demand for gold has been as a substitute for silver, and any cases where the new demand for gold has been as a substitute for paper?—I am not quite clear that it would be of much importance for what you are doing now.

525. Would it not on this ground, that where the new gold has been substituted for silver it has not only increased the demand for gold, but diminished the demand for silver, whereas in these cases where the gold was required as a substitute for paper that second result has not followed?—I think we shall come to that presently, when we deal with silver, but I may say that, as far as I can judge, there has not been as yet a great diminution of the actual demand for silver, as compared with the period before the fall in silver commenced, for special reasons. I may mention, as one of them, that part of the reform in the United States was the abolition of fractional paper currency, which took place about the same time as the resumption of specie payments, and on that head alone, apart from the question of the Bland dollars which the United States has been coining, the United States seem to have coined about 10,000,000*l.* sterling of silver instead of fractional currency.

526. In addition to the Bland dollars?—In addition, so I do not think the point is so very material as to whether the new demand for gold has arisen through its being a substitute for silver or in some other way.

527. (*Mr. Birch.*) Have you any information with regard to Spain. Spain has parted with a large quantity of gold and taken silver in its place?—The question would be whether that is a new demand, whether Spain has not always been practically a gold standard country, at least for a great many years.

528. But the gold it has sent away has been replaced by silver; that would make a new demand for it?—Some demand. I have not got the figures.

529. (*Chairman.*) The demands you have been describing to us are all new. Do they take the place of any demands of an analogous character existing before 1861?—I think it is important to draw attention to the point, that although they are new as compared with the period just before 1871; yet, if we were to go further back, we should find that the demand for gold for France was really an abnormal demand of a somewhat similar kind. That is to say, between 1850 and 1865, France took an immense amount of gold, and that of course was an extraordinary demand. I am merely wishing to draw attention to the point, that I am making my comparison with the period just before 1871, when that demand for gold in France had ceased.

530. Could you give us any idea of the magnitude of the demand for gold in France?—That of course is a very familiar fact, which you will find in many of the statements. My impression is, that about 220,000,000*l.* sterling was coined in the period stated, but of course that is a figure which you will get very easily in the Blue Books.

531. Over a period of 15 years?—Over a period of about 15 years, and curiously enough, although that to a large extent arose through France having substituted gold for silver in its money, owing to the bi-metallic arrangement, yet the amount of silver which France sent away was very much less than that. I think it was only about 75,000,000*l.* sterling.

532. Then the conclusion that you would adopt is, that the amount of gold that was required was not simply as a substitute for silver, but also to fill up the demand for coinage existing in the country itself?—I think that has been the case to some extent all through these years; that there has been a growing demand for coinage to some extent.

533. Through increase of population and wealth?—Through increase of population and wealth, and that when a country has made a change, you are not to estimate the demand that it is likely to make by what would have to be substituted, but by the new circumstances altogether.

534. (*Mr. Birch.*) And it would be also to replace paper?—To replace paper to some extent, although how far any paper has actually been displaced, except in Germany, would be a very difficult question to decide. I do not think that, in point of fact, there has been much diminution of paper in America until now. Now there is beginning to be some diminution of the bank note circulation, and its place is being taken by gold, and to some extent by silver certificates, but I do not think you can say that since 1873 there has been any material diminution of the paper circulation in the United States though it is less of an uncovered circulation than it was.

535. Silver certificates do not differ except in name from ordinary bank notes, I take it from an economic point of view?—From an economic point of view, both gold and silver certificates are simply bank notes, with the important difference that they are absolutely represented in the case of gold by a full equivalent, and in the case of silver, at the present market price, not by a full equivalent.

536. (*Sir T. Farrer.*) And is there not a further difference that the person holding a silver certificate cannot demand gold, but only silver?—That would be a material difference I think in point of law, and yet

not so material as things stand at present in point of economic effect. *Mr. R. Giffen.*

537. But supposing that gold left the country, then it would be material?—Then it might become material in effect.

538. You have referred to the previous state of things in France. Is it not also the case that the demand in the United States was a demand which had been intermittent, rather than an absolutely new demand? The United States had been a gold country before the war?—That would be so in respect of the quality of the demand, but I think when we take into consideration the fact that the United States stopped specie payments in 1860, and did not resume till 1875, an interval of 15 years, in which they had increased enormously in population and wealth, the quantity of the demand in that time had become entirely different.

539. (*Mr. Barbour.*) And before they stopped cash payment they were bi-metallic, were they not?—I believe they were not bi-metallic, they were practically a gold country.

540. But they were bi-metallic at a ratio of 1 to 16?—A ratio existed.

541. Nobody bought silver at the ratio?—No.

542. They were legally bi-metallic, but practically gold since 1834?—Yes.

543. (*Chairman.*) But there was no alteration of the law in 1834 was there?—There was an alteration. They altered the ratio then from 15 to 1 to 16 to 1.

544. The demands on the gold productive powers of the world which you have described to us, so far, have been temporary in their character, that is to say, they have been required to make a great change in the currency?—To a very large extent they have been, and I have thought it might be very important if one could distinguish what has become what one would call the normal demand from what was absolutely necessary to effect the transition, but I am afraid that we are yet too near the transition period to be able to form an estimate upon this head. I should say that, as regards the United States, we might consider that since 1880 all the demand that has existed has been of the character of a normal demand, but for this reason, that the United States have had so much trouble with the artificial character of the coinage laws, that I think they have had to make special demands for gold more than perhaps they otherwise would have made, to guard against accidents, and that one can hardly say even now what the normal demand for the United States is.

545. (*Sir T. Farrer.*) May there not be another element of change there, arising from the possibility that if the present bank note circulation diminishes in consequence of the diminution of the United States debt, which is the foundation for it, it may be necessary to issue more notes, and to have further gold as a reserve against these notes?—That is part of the transitional state of affairs that I am referring to, and we do not know what the legislation will be with reference to these points.

546. (*Chairman.*) Is it not possible to form an estimate of what the normal demand of the gold circulation of the United Kingdom is?—I think it is extremely difficult, if it can be done at all.

547. If it could be done, might one not apply the law so discovered with regard to the United Kingdom without any very great risk of error to other civilised countries?—Well, I think it cannot be done very satisfactorily for this reason, that the circumstances are always changing, and, I may say, that in these papers that I have referred to already, and which I prepared in 1872, I made some attempt to discover what amount had been going into circulation in the United Kingdom. That is to say, I took into account the coinage, the re-coinage, the surplus of exports over imports of British coin, and tried to arrive at the sum, and the sum I arrived at in that time was about 2,000,000*l.* sterling per annum for the 14 years ending with 1872 or 1871, 2,000,000*l.* sterling per annum.

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548. Have you any reason to distrust that estimate?—I do not know that I have any reason to distrust that, or to have confidence in it, except that people can form their own judgment as to whether the mode described is a proper mode of doing the sum, and judge what the result will be. I have had no means of checking it in any way from any other sources, if that is what you mean. It seems to me the best way to work out the sum, but there are absolutely no means, as far as I know, of checking it in any other way that would be a real check. That was the figure which I arrived at then. But I could not say that that figure, even if good for the United Kingdom some years ago, would represent the normal demand in recent years or give an idea of what the normal demand in other civilised countries would be. The circumstances are so different.

549. (Mr. Birch.) I should like to ask whether you had taken into consideration the coinage of Australia?—I took that into consideration in this way, that I first took the figure of coinage; I deducted the re-coinage from that; then I took the figure of the surplus imports or exports, as the case might be, of British gold coin only, and I arrived at a sum which seemed to be the amount going into circulation in the United Kingdom exclusively.

550. (Mr. Fremantle.) Over what number of years was that?—About 14 years from 1858 down to the end of 1871, and you will find all the particulars of it in the series of articles I wrote in *The Economist* in 1872.

551. (Mr. Birch.) One very important element to take into consideration, and one very difficult for you to follow, is this: Brazil and Portugal, and other countries use our gold coin?—That all appeared in the estimate which I made, because that appeared in connection with the balance of imports and exports of British gold coin.

552. I want to try another point. You cannot calculate what is the total amount, supposing Portugal and Brazil to become very flourishing. You cannot rely on the calculations you made 10 or 15 years ago. They will not serve now. What amount of that gold may remain as circulating in those countries?—The calculation I made, the one I have been referring to, does not bear on that point at all; it simply bears on what went into consumption in the United Kingdom, but I may say that the figures which I prepared altogether did show what went on balance to Portugal and those countries.

553. (Mr. Fremantle.) Did you take account of imports as well as exports?—Both. Imports as well as exports.

554. (Chairman.) I suppose the normal demand of any country for coinage consists in the amount required to make up for wear and tear, the amount required for increased coinage as wealth and population increased, less the amount saved by checks, bills of exchange, and other similar contrivances, which may come into use in the period?—That would be so, but, of course, there are so many elements of doubt that you cannot be sure that what has happened in the last 10 years, is what ought to happen in the next 10; there are so many elements of change.

555. Could not you arrive at some approximate estimate on the lines that I suggested? We know what the wear and tear is, do we not, or at all events we have a conjecture as to the amount of wear and tear?—The wear and tear is very inconsiderable, and does not make much difference in the subject.

556. In a country like England the banking facilities and other methods of economising coin have not increased very much within the last 20 years, have they?—I do not think that, effectively, any changes which have taken place in that way would have much bearing on this question.

557. So that all the additional coin that we have required must have been to make up for the small amount of wear and tear, and for the increase of wealth and population?—And also to make up for any void that may have been caused in the coinage through what

may have been taken for use in the arts which we do not know about. And then, of course, I may say that with reference to that calculation it is subject to the great difficulty that when you come to reason finely about it, to aim at minute accuracy, and apparently something like minute accuracy is necessary, you have not the means necessary for a sure result. The figures you arrive at are so small compared to the large figures of imports and exports from which you may make your calculation that the margin of uncertainty with regard to these imports and exports themselves may be sufficient to destroy a good deal the value of the calculation unless you can check it in some other way.

558. (Mr. Birch.) I think you said that there had been no material alteration in the banking facilities. Don't you think that cheques are very much more in use now than they were some 10 or 15 years ago, and are applied to much smaller amounts; and they take the place of gold?—One may admit all that, but the question is one of degree. It seems to me that cheques would compete more with bank notes than with gold, but that is one of the points one would like information about, instead of theorising about it.

559. Formerly nobody drew a cheque under 5*l.*, but now people think nothing of drawing a cheque for 1*l.* It is constantly done?—I have given some attention to that, and, I think, if it is considered for a little while, what the extent of that change might be, and that it affects the habits chiefly of a small class by comparison with the rest of the country, then I do not know how far you would make a saving in coin by the difference in the extent to which cheques have been used in that way, compared with what was the case before. I think one might say, at the same time, with reference to that, that you have had coin economised by means of postal notes, and things of that kind, perhaps, to some extent; but, looking to the country generally, and considering how much wealth has increased in the same time, it would seem to me very doubtful whether there has been much practical diminution in the necessity for using coin in the interval as compared with the general extent to which coin was used before.

560. (Mr. Fremantle.) It is a fact, is it not, that the gold coinage during the last four years has been very small in comparison with former years?—I think one of the results of the inquiry which I made in 1872 is to show that if we look at what happened up to that time for the 14 years before, and what has happened in the 15 years since, we can say that, taking the same figures for our information, the amount of coin going into circulation has been less since 1872 than it was before that, and in the last five years it would almost seem as if no amount has been going into circulation at all. In the past year it has been coming out of circulation.

561. (Sir T. Farrer.) Notwithstanding the great increase in wealth and population, and commerce?—Notwithstanding all that has happened.

562. (Chairman.) But would not that point conclusively to the fact that there must have been some substitution for gold in the way of cheques?—Not conclusively. There may have been other changes. I would not like to go into the question of what the explanation may be, but there is undoubtedly the fact that, as far as one can judge from the figures, there has been a change since 1872 as compared with the period just before that.

563. (Mr. Houldsworth.) Have you made a similar calculation since 1872 to that which you did before 1872?—I am sorry to say, it shows how one forgets, that when I made up some tables for the Commission on Trade, I thought I was going to arrive at the same thing, and gave directions for its being done; but I found that one important point had slipped out, and that was that I did not allow for the re-coinage, and if you look at the table for the United Kingdom which your Secretary has been good enough to prepare for you, and which continues these tables which I prepared for the Trade Depression Commis-

sion, you will find that the first five columns of it relate to the amount of gold coined, the net imports or exports of British gold coin, and the amount coined *plus* the excess of imports or *minus* the excess of exports. These are substantially the same figures that I used before 1872, but the re-coinage is omitted. Still allowing about 1,000,000*l.* annually for the re-coinage, one can make a comparison with the period before 1872 and the period since. You will find that in 1860-64 the balance that appeared to be going into circulation, but not deducting the re-coinage as we ought to do, was 2,300,000*l.*; in 1865-69 it was 2,800,000*l.*

564. (*Mr. Birch.*) Out of the Mint?—No, from all sources. In 1870-74 it was 2,760,000*l.* In 1875-79 the figure is 1,608,000*l.*, and in 1880-84 it is 871,000*l.*, so that you have practically before 1872, on these figures, very nearly 3,000,000*l.* sterling, or deducting for re-coinage, you would get the same figure that I gave before, about 2,000,000*l.* sterling, but since 1872 the net sum annually added to the coinage has been much less, and lately it has been a minus quantity.

565. (*Mr. Houldsworth.*) If there was 1,000,000*l.* of re-coinage, and you deduct that from the 2,760,000*l.* of 1870-74, the result is about 1,760,000*l.*?—It becomes something less than 2,000,000*l.* Then in the following five years it would become something less than 1,000,000*l.*, about 600,000*l.* only, and in the five years ending 1884 it would be less than nothing.

566. (*Chairman.*) These figures give you the coinage from all sources, don't they?—The coinage from all sources. I take the coinage of the United Kingdom, and add or deduct the excess of imports or exports of British gold coin, and that gives you what comes into circulation from all sources in the United Kingdom.

567. Do you think we could find some method by which we could estimate the normal increase of the demand for gold, and the abnormal demand consequent on the fact that certain countries have adopted a gold standard?—I think there is a difficulty with any country, even with regard to the United Kingdom; but I think as regards the new countries I have been speaking of, the United States especially, that it is impossible, for another reason, that there has not been time to show what the normal demand is.

568. (*Mr. Cohen.*) Mr. Sauerbeck professes to give it in his paper. He professes to show the increased demand for gold arising solely from those countries that have introduced gold, at page 4?—I have read Mr. Sauerbeck's paper; but this is a subject with which I have been very familiar, and I do not think Mr. Sauerbeck addresses himself to this special point. The subject is most difficult and you cannot easily get round the difficulties.

569. (*Mr. Barbour.*) Do you think there is a normal demand for the metal as standard?—Strictly speaking, there is a demand which you might say would be necessary to maintain prices and wages in a country in equilibrium, all other things remaining unchanged; but whether it would be possible to obtain, practically, an estimate of what that demand is, is statistically a very difficult question. That is, as I understand, the point which we have been discussing, that theoretically there would be in the nature of things such a demand, but whether you can identify it in the concrete with any particular figure is a very different question.

570. And of course the amount that any country takes in any particular year will be affected by the demand in other countries?—It would necessarily be affected by the demand in other countries; but then, if you speak of it theoretically, you assume that the demand in other countries is also in a normal condition, and this would enable you to say what the normal demand in a particular country is. But of course in point of fact, and this is the real difficulty of the subject, all things are changing, not only in our country but in every country, and that makes it difficult to find a concrete figure that you can identify with your theoretical idea.

571. (*Sir T. Farrer.*) And your assumption is that the demand is based upon the hypothesis that prices, wages, and so on remain in a state of equilibrium?—And that population remains in equilibrium, or at least that you must allow for a constant increase of population.

572. (*Chairman.*) Then there has been, as you are aware, a large demand for gold for India since 1871. Do you regard that as of importance?—There is no doubt of its importance in many ways, but when I was considering the subject I did not consider it so specially important with reference to this particular point, because the demand for India has not changed in character as I understand; it is more a question of degree. The kind of demand for India was in existence before 1871, as well as since then, although there is no doubt that the real amount of the demand for India, as compared with the period before 1871, has been somewhat less. I think it may be interesting to state the exact figures, as your secretary has prepared them for you in that table with reference to British India. It appears from that, that in the five years ending 1855 the net imports of gold into India were about 1,000,000*l.* sterling per annum; in the five years ending 1860 the net imports were 3,200,000*l.* per annum; in the five years ending 1865 the net imports were 7,000,000*l.* sterling per annum, and in the five years ending 1870 the net imports were about 5,000,000*l.* sterling per annum; in the following five years, that is ending 1875, the amount is only 2,300,000*l.* per annum; in the five years ending 1880 the amount is only about 600,000*l.* per annum, and in the last five years the figure has got up again, and is 4,700,000*l.* per annum, and in 1885-86, which is the last of all, the figure is 2,760,000*l.* per annum, so that although the amount in the last 15 years has been considerably less than in the 15 years before that, yet you cannot say that the demand for India has changed in character at all. There has been a large demand for India at both times, and I do not think that that makes much difference in the question we have had before us of the extraordinary demands. The diminution in what India has taken is not a very material set-off to the extraordinary demands for other countries.

572a. (*Sir T. Farrer.*) The largest amount of gold that India took was simultaneous with the largest amount of silver which she took?—That would be so. Of course that bears on a different point. I am merely speaking about demands for gold.

573. And both were simultaneous with a very great increase of exports over imports?—I have not prepared myself on that point, but I daresay that would be so.

574. (*Mr. Barbour.*) These figures refer only to imports and exports by sea?—I assume that that is so, but I am not aware that the trade of India by the land frontier is very material. It may be with reference to bullion, but I do not think it is with reference to other matters.

575. But are you aware that there was in former years a certain amount of import of gold across the frontier coming down from the direction of Central Asia?—I have not looked into that at all. It may be material, but that would hardly come into our question at all, because the gold in question never comes into the general markets of the world, as far as I can judge, in any shape or form.

576. But if India were supplied with gold from Central Asia she would not import so much by sea?—It would have a special effect as regards India, and that might ultimately affect all those questions that we are considering, but it would not have much concern with the special point that I have been dealing with, and that is the extraordinary demands for gold that come into the general markets of the world, and whether these are set off in any way by the diminution of the demand for India.

577. I merely wanted to get the fact as regards India. The amount is not known, and I do not believe it is large, the amount that now comes in

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578. I do not believe anybody knows, but I have seen Russian coins and Bokhara coins in India, and know they do come down from Central Asia?—I can understand that would be so.

579. Gold is a luxury in India; it is not the standard. I suppose the amount imported depends very much on the means of the people to pay for gold?—I have no doubt that all through that is a material point with reference to this question, viz., the cost of production at which things are obtained.

580. There is one point on which I should like to get your opinion. When the value of silver began to fall off, to a native of India it appeared that gold was rising. He bought his gold with rupees, and to him it would appear that gold was rising. If you take those figures you will find that when the exchange falls the import of gold falls off temporarily. For example, it fell very much in 1878–79. There was actually a net export. In 1885–86 you will find again a very small import. I would ask you whether a rise in the value of gold as compared with silver appears for a time to check the import?—I should not like to express an opinion on that point without examining the facts, but I should say, as regards India, that probably the gold goes there in those years in which the people are well off, and that it goes in larger quantities than at other times. Whether the difference in price apparently made by taking the exchange at a particular moment would affect the demand in India I really could not say.

581. (*Mr. Birch.*) But is it not clear that as they pay in their currency, which is silver of course, they would pay more silver for the gold?—Yes, but just as they pay more for everything else if it maintains the same relation to gold that it did. No doubt the supposition is, that a fall in the exchange temporarily checks the imports of every kind into India, and stimulates the exports. As far as I understand, that is only a temporary process, and not a very lasting one.

582. (*Chairman.*) You have now given us a general survey of the additional demand upon the gold resources of the world during the last few years. Can you next give us a similar survey with regard to the diminution of the demand for silver, or of the area of the demand for silver during the same period?—Well, I think that with regard to silver I have put the phrase in the notes I have given you, “a diminution of the area of employment,” so as to call attention to the fact that there are really two points involved, and these are that you might have a certain diminution of the area, and not much diminution of the effective demand, or *vice versa*. And with reference to the diminution of the area of employment for silver, the most important event, of course, of these years in one way has been the change in Germany, which substituted gold for silver as its standard, and the result of which was that not only did the demand for silver in Germany, to keep things going there, cease, but Germany for a time had a certain amount of silver to sell. I think about 30,000,000*l.* sterling in all was the sum that was sold. That is the more important of the events as regards silver. Then the next event was, of course, the suspension of the free coinage of silver by the Latin union, and that operated not to diminish the actual employment for silver as compared with what had been in existence before 1872, but a possible employment which might have come into existence if the law had not changed. I think that is necessary to explain exactly what happened in regard to France.

583. You mean that France being a bi-metallic country it is impossible to say for any given period of years beforehand whether its currency will be chiefly gold or chiefly silver. That necessarily depends upon the oscillation produced by the demands of other countries?—That is so, and, in point of practice, just before 1871–72 neither France nor the Latin conven-

tion countries had been large consumers of silver practically. They were practically, I should say, gold countries at that time, and they had not been large consumers of silver practically. I think that to some extent before 1872, according to these tables which your secretary has prepared, France was practically taking silver for a very few years; but if you go back a little farther you will find, according to the table, that down to the end of 1864 there was an excess of exports of silver from France, and that had been going on from about 1850, and France altogether, instead of being a consumer of silver, was really a seller of silver, and it disposed of about 75,600,000*l.* sterling. But then after 1865, inclusive, the tide seems to have turned, and France was beginning to take back silver again, and the average import in 1865–69 was 3,600,000*l.* per annum. In 1870–74 this had risen to about 5,500,000*l.* sterling per annum. But part of that, of course, was the large import in 1874, when the fall in silver had commenced, and which, in fact, was the occasion which induced the French Government to suspend the coinage of silver. What surprises me to find is, that in the following five years, notwithstanding the suspension of the coinage, France actually imported 5,000,000*l.* sterling of silver per annum, and even in the five years, 1880 to 1884, France imported very nearly 1,000,000*l.* sterling per annum, so that although you had a diminution technically of the area of silver, and probably of the demand for it as compared with what the demand would have been if France had continued bi-metallic; yet, in point of fact, if you take the 15 years from 1870, and compare them with the 15 years before, you will find that the practical diminution in the demand for silver in France, and I suppose it has been the same in other Latin countries, has not been sensible at all. There has been that change in the area of the employment I have described, but no practical diminution of the actual demand for silver.

584. Then your general conclusion is that, as far as Europe is concerned, gold has been more required, but silver has not been less required?—I think, as far as that goes, that the diminution of the area of employment for silver has not amounted practically to a great deal, but this does not, of course, alter the fact that a great alteration has been made by the suspension of free coinage by the Latin convention countries, with reference to the possible demand which might have come from the Latin countries.

585. The amount of which must necessarily be a matter of conjecture?—I think a matter of conjecture, and I think, with reference to this question, that probably it would have made a considerable difference in the demand for silver, but not much in the demand for gold.

586. Before we go to America, and before we leave the Latin union, may I put this further question to you. The operation of the bi-metallic system in France would have tended to drive out the dearer metal, and as from other causes gold would have become the dearer metal, probably the whole circulation of France would have been silver if she had still remained a bi-metallic country?—I think the point is quite clear, but what I should like to say with reference to it is that it does not follow that although the silver in France was displaced by gold after 1850, that therefore if France becomes bi-metallic silver would displace the gold to the same extent now. That raises really a very important question of theory which perhaps we ought not to go into at this moment. Gold, as it seems to me in former times, circulated very much as what is called monetary merchandise, even in bi-metallic and in silver countries, and it might so continue to circulate if France were again to become bi-metallic. We do not know exactly what the stock of gold in France is, and it would be a matter of very nice and intricate calculation indeed how much silver would be required to go to France to displace the amount of gold necessary to establish silver as the sole standard.

587. (*Sir T. Farrer.*) But I suppose we may go this length, that if the Latin Union had not suspended their coinage of silver a larger amount of silver would have been employed in those countries?—Probably a certain amount of silver, but other events might have happened, and you might have had a less demand for silver, probably, in the United States.

588. (*Chairman.*) That brings us to the United States. Have you any information to give the Commission in regard to them?—I have simply to call attention to the coinage of silver in connexion with the Bland Act, which has been going on, amounting nearly to 5,000,000*l.* sterling for almost 10 years, I think. It amounts to very nearly 50,000,000*l.* sterling—the silver that has been coined in this way in the United States.

589. It need not by law be more than 2,000,000 dollars a month?—A minimum of 2,000,000 dollars and a maximum of 4,000,000 dollars per month, and 2,000,000 dollars a month is about 4,800,000*l.* per annum. They must coin that amount.

590. They have never exceeded the minimum?—They have never exceeded it, I believe. Well, that is a new demand for the United States of a very special character for silver, which I think may be fairly set off against any diminution of the area of employment in other directions as far as the actual use of the metal has been concerned.

591. (*Sir T. Farrer.*) I heard it suggested in the United States that this action of the Government with regard to silver had, on the whole, the effect of rather depressing than raising the market, and very possibly if they had let silver alone the supply and the demand would have accommodated themselves, and the price would have been higher?—That is a question that I should feel great difficulty in going into.

592. The fact of this extraordinary demand stimulated the supply?—These are all very difficult matters indeed to go into on questions of fact.

592*a.* (*Mr. Fremantle.*) Is it not a fact that since 1878 the general course of the silver market has been downward?—No doubt the general course of the silver market has been downwards.

593. Notwithstanding that the United States Government have absorbed nearly 5,000,000*l.* per annum of silver?—I am quite aware of all that, but I am merely mentioning what the broad facts appear to me with reference to what the actual demand for silver has been.

594. (*Chairman.*) Perhaps you could now give us the figures with regard to India?—Of course the figures with reference to India are another great element in the silver question. What has been already stated with regard to gold is true of this, that India and the eastern countries generally have made no change with reference to the nature of the employment, that they still are countries with a silver currency, and using silver now just as they were before 1872; but, of course, in point of fact, the amount of silver going to India during the last 15 years, I think, has not been quite so great as it was in the 15 years before that. But that does not arise from any change with reference to the area of the employment of silver; it is actually a change with reference to the practical consumption, and I do not know that in this question it ought to be a set-off to the other matters. There has been no change legally, but practically there has been a less demand than what there was in the previous 15 years. I think that in the previous 15 years, from 1855 to 1870, you may say that the annual demand for India was very nearly 10,000,000*l.* sterling of silver. I suppose 10,000,000 tens of rupees would be the strictly correct language to use. But at that time India was receiving silver from France. It was receiving a great deal of the silver that was displaced from France.

595. (*Sir T. Farrer.*) At the time of the cotton famine and all that period?—At the time of the cotton famine and all that period.

596. (*Chairman.*) During that period the total received was 10,000,000*l.*, but India was receiving from other quarters?—From 1872 to 1875 the annual amount India was receiving was 3,000,000*l.* sterling annually. That was just before the drop in silver. Since then, in 1875–80, the annual amount has been 7,000,000*l.* sterling, and in 1880–5 the annual amount was 6,000,000*l.* sterling, and in 1885–86 the amount has been very nearly 12,000,000*l.* sterling, so that, although there is a diminution in the last 15 years compared with the previous 15 years, there has been no change in, what I may call, the legal position of India with reference to the matter; and, practically, the Indian demand has been a very large one, so that there is no set-off very much I think to what I have said with respect to the diminution of the area of employment for silver.

597. Then China?—Then with reference to China I have put in a table which you have in your hands, which seems to show that although China is usually a country which exports silver, yet since 1875 if you look at the table you will find that there is an excess of imports of silver in almost every year. In 1875 the excess of imports is 2,000,000*l.* sterling; in 1876, 3,800,000*l.*; in 1877, 5,300,000*l.*; 1878, 3,200,000*l.*; in 1879 and 1880 there is no balance one way or the other; in 1881 the excess of imports is 1,500,000*l.*; 1882 there is a slight balance the other way; 1883 the excess of imports is 1,200,000*l.*; in 1884 the excess of imports is 2,100,000*l.*; so that China from being a country exporting silver, as was the case just before the drop in silver has since then been a country importing silver on balance. (*See Appendix III., F.*)

598. Concurrently with the export of gold?—Concurrently with the export of gold, as we have seen; but, on the whole, China has taken more silver of late years than it did before.

599. (*Mr. Birch.*) But did she take gold at the same time that she took silver?—I do not think for many years, according to that statement which I put in, China has been importing gold upon balance. It has almost been uniformly an exporting country. (*See Appendix.*)

600. Then she would receive the silver as the balance of her trade?—In what way precisely she has been receiving the silver of late years I could not say without knowing something of what the trade of China is.

601. (*Chairman.*) Can you give us any conjectural estimate of what proportion of the silver that goes to India goes there for the purpose of keeping up the currency, and what goes there for the purpose of being hoarded, and practically disappearing from the world's use altogether?—I should like to see some evidence from Indian authorities upon that head. My own impression is, that the amount actively in circulation, of silver, is probably very small. I would not like to say how much it is, but that is my impression,—that there are many parts of India, as I understand, which are almost in a state of barter and very many parts where the chief currency is copper, and that the use of silver is very largely in the large towns of India; and altogether I doubt very much whether the amount actively in circulation anything approaches the sum which would seem to have been coined in India.

602. (*Mr. Barbour.*) The land revenue is the chief portion of the revenue of the Government of India, and it is paid by the cultivators all over the country in rupees; are you aware of that fact?—I could quite understand that that might be the case, and that the silver was used for some very special payments, and yet not used generally; that the copper currency might be the real currency that was used in the daily transactions of life. That would be analogous to what happens in other countries.

603. (*Chairman.*) Your opinion then, to conclude this part of the examination, is, that two changes have taken place. The greatest effect has probably been caused by the increased demand for gold and not by a decreased demand for silver?—That is the case;

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that, so far as one can judge respecting the change in the relative values of the two metals, and the causes operating upon that change, you would say that the increase of the demand for gold coupled with the diminished production, which I have referred to, has been a more important matter than the diminished demand for silver alone. The increased production of silver, of course, would be a material point.

604. But would it not be accurate to say that the demand for gold and silver are strictly correlative, if you exclude note circulation; and that, apart from note circulation, to say that the demand for gold has increased, and that the demand for silver has not diminished, is an impossibility? If one rises, the other must fall, if you exclude consideration of all paper currency?—If the effect of the increased demand for gold is to cause a rise in gold taken in connection with all the other circumstances, then the other metal must fall relatively to gold; but it is purely a question of relation with respect to each of them and all other commodities. That would be a very difficult question to investigate.

605. But as the total work to be done by the two metals as circulation, still excluding note circulation, is the same, or practically the same, to say that the demand for one has increased is exactly the same as saying that the demand for the other has diminished?—I am not quite sure that I should put it so, because I do not know that. That would raise an important question of theory. I do not think the use of the two metals is precisely the same at all. They are used for money in different ways, and are useful in different ways in respect of money, and I do not think you could speak of them as exactly on the same footing.

606. At all events, you would go so far, I suppose, as to admit that one of the reasons why there has been an increased demand for gold is, that gold is largely taking the place not merely of silver but also of notes?—I think there is no question as to gold having taken the place of paper, and that is an important point; but the chief change with reference to the substitution of gold for silver is simply the change which happened in Germany. There has not been much change otherwise affecting practically the area of employment for silver as compared with what was the case before 1872.

607. Then the only other point upon which I have to ask you any questions to-day is about the use of the precious metals in the arts. Could you give us any information on that point?—Well, I had the advantage yesterday of hearing what was said by Mr. Pixley and Sir Hector Hay, and, of course, I had made some observations upon that subject before; and I should like to say, with reference specially to the estimates of the United States, that I think I can explain some of the difficulties which the gentlemen you had yesterday experienced with reference to these estimates of the Director of the United States Mint. I have got here with me all the reports of the Director of the Mint, bearing on the subject, beginning in 1879, and the general effect is, that they seemed to feel with reference to the question which has already been mentioned, that of the amount of coin going into circulation, and other matters, and the expediency of making estimates of the amount of coin in the country, that they ought to take into account the amount that was used in the arts. Accordingly they began in 1879 by taking note especially of what seemed to be purchased at the mints for use in the arts; and I think the first years when they began to observe it the amount was about 3,000,000 to 4,000,000 dollars, that seemed to be purchased at the mints for use in the arts in 1879. Then the Director of the Mint, at that time Dr. Burchard, states that he sent out circulars to all the people whose addresses he could find in the Directory, engaged in the manufacture of the precious metals in different forms, and asked them to fill up this schedule which he sent out to them, stating how much they used in their business, and how much they obtained

from United States coin, how much from foreign coin, how much United States bullion, and I think there were one or two similar headings, but at any rate the Schedule was very complete, and he publishes all the results of the answers which he got, and the figures which he got. The first figure which he thus obtained was 7,000,000 dollars as the amount of gold used in the arts and about 5,000,000 dollars as the amount of silver, and that was about the year 1879. Then, he did not make an estimate in the same way for a year or two after, but simply took the figure of the amount of bullion purchased from the mints and made a shot at the other figures from the information that he had previously obtained, and so got estimates of the amount used in the arts. Then, about 1883, he made that estimate which has been quoted, of about 14,500,000 dollars of gold; that is to say, about 2,900,000*l.* sterling, and that was obtained in the same way as the estimate of 1879, but of course was a great deal larger. However, in the very last report of all of the Director of the Mint, that for the year 1885, in which a new Director seems to have been appointed, Mr. Kimball, I find that the estimate is dropped out altogether, and that you simply have for that year the figure of the amount that is purchased from the mints, with the phrase, "supposed to be for use in the arts," introduced.

608. And what does that amount to?—My impression is, that the estimates in previous years, although I think they were honestly and fairly made, are not made in such a form, or published with such detail, as we ought to expect in a matter of this kind if full credence is to be given to them. Speaking statistically, what I should like to see in any estimate of that kind, would be some account of the replies that were received, and whether the replies covered what were known to be the principal manufacturers in the business, and some distinct statement as to how much is conjecture, and how much is a real figure, more or less examined, in the final total which is put forth, and also some account of the process, so that one could see how the difficulties which must inevitably have cropped up in an investigation of that kind were practically dealt with, as well as what were the means used to prevent duplicates being returned, because you might have a dealer in a large way making a return of what he had disposed of in his business, and then you might have a manufacturer making a return of exactly the same thing. I should have liked to have seen in what way all these obvious difficulties in the statistical investigation were dealt with. So that, looking at what has been done with these estimates, and at the way in which in the last year of all the estimate has been quietly dropped out of the Mint report so far as I can see, I should doubt such a high figure as 3,000,000*l.* as the amount of gold used in the arts in the United States, although possibly some figure between 1,000,000*l.* and 2,000,000*l.* sterling, and possibly nearer the higher than the lower figure, looking at the thing broadly and the account they give of the business, may be fairly well justified.*

609. Do you know of any estimates which have been made with regard to the United Kingdom?—I have never heard so full an estimate made as that made by Sir Hector Hay, I think yesterday, but I should say with reference to that estimate that I should have liked very much to have seen a little more detail about it, both with regard to the locality of the places where the gold was supposed to have gone, and with regard to the objects for which it was supposed to have been used. That might have been a means of enabling other people to check it, and would have made it a good deal more valuable. And I think still it would be highly expedient, if the matter is to

* Since this evidence was given, a later Mint report, viz., for 1885-86, has been issued, from which it appears that a later investigation has been made by means of the issue of Circulars, and a figure of 2,000,000*l.* as the amount of gold used in the arts is arrived at. But there are still no details of the statistical process.

be investigated at all, that some fuller investigation should be made than what has yet been made. It is not desirable to rest upon statements of that kind of a general character.

610. Could you suggest the method by which the investigation should be undertaken?—Not in a breath, as it were. It would really take a good deal of time to make a proper investigation.

611. (*Mr. Birch.*) Do you agree with Sir Hector Hay's view that only about one-fifth of the total amount used is taken from old coin?—It seems to me that with reference to the amount of coin used in that way, I am a good deal afraid that that must always be a matter of conjecture to a very large extent.

612. It is not generally full weight coin; it is light coin which they purchase, and from statistics which I got from the bank with which I happen to be connected, it appears that in Birmingham alone they have been selling 10,000*l.* a week to the jewellers; therefore, that would be one step towards obtaining information; and I think myself there would be no great difficulty in arriving pretty nearly at a conclusion, because we know in England who the principal manufacturers are?—Perhaps so.

613. (*Mr. Fremantle.*) Is it not probable that heavy gold coin would be taken for the purpose of being melted down?—The difficulty seems to me, that you cannot tell what happens with regard to very many small people all over the country who may melt up a few sovereigns now and again, and you cannot tell what the general effect may be. In any case that difficulty would remain.

614. (*Chairman.*) I do not know whether you could assist the Commission by laying down certain lines of investigation upon this point, which is an extremely important one, so that we might with your assistance arrive at something like a conclusion?—I shall think over it and see what I can do, because I think it is a very important matter.

615. Have you any information with regard to other countries?—I have no information with regard to other countries except what Mr. Soetbeer gives, and which you will find in the last book to which I have referred you; and I think it is important to notice that perhaps as regards the Continent, France, Germany, Switzerland, and Holland, what Mr. Soetbeer gives seems to me of more value than what is known with reference to the United States and the United Kingdom as things at present stand.

616. Why is that?—He has taken a good deal of trouble to get together statements of what is used in particular trades in particular towns, the very thing Mr. Birch is suggesting for this country, and he gives a most minute account, for instance, as to what is taken in Switzerland, and that part of France, near Neuchâtel, which is connected with watchmaking. These and other statements show that he really has gone into the subject in detail to a very large extent, and you can see for yourselves that there must be a considerable amount used in arts in some way or other. The one important point to my mind, however, is this, that even if you get an estimate at the present time that will not supply the place of estimates which ought to have been in existence in former times, and it does not follow that if you get a figure for a particular year now, that that can be carried back any length of time, and until you get a series of statistics you get nothing quite satisfactory in a matter of this sort.

617. But on the whole you are inclined to think that Dr. Soetbeer's estimates with regard to the Continent may be taken as fairly trustworthy?—I think so.

618. So that if we could add to them the United Kingdom and the United States, we should, at all events with regard to civilised countries, be able to give a fairly accurate estimate of the total amount used in the arts?—I think so.

619. (*Mr. Fremantle.*) But only during recent years?—Only during recent years, and only taken for the very year for which it is given, and then it seems

to me that the point to which I have drawn attention more than once to-day would still remain very important, and that is how much is taken for the arts out of the coinage, and how much is got from other sources, because that bears upon the problem which I have referred to in the case of the United States, that you can absolutely trace a quantity of gold to a country, and then you cannot tell what has become of it, whether it is circulating, or whether it is lost, or whether it is used in the arts, or whether it is hoarded. You cannot tell within very wide limits indeed what the state of the stock of gold in a country is.

620. (*Chairman.*) Then there are two very important points connected with this branch of our inquiry which I believe you are not prepared to give us any information upon. One is the total of the precious metals in circulation in the world available for the world's use, and the other is as to the cost of production of the precious metals?—As to the cost of production I can tell you nothing, and of course the one difficulty I should have in the matter would be that if I were making the inquiries I should like to know not merely the cost of production in a sort of average way; but the facts as to the point to which you called the attention of witnesses yesterday, viz., the cost of production at which certain mines would stop, and matters of that kind. And then with reference to the cost of production also it must be considered that that is a thing which of itself may be continually changing just as all other things are changing. If you have a rise in wages in one locality, that raises the cost of production, and if you have a fall in wages, the cost may fall, and you have always to consider that the whole thing is changing, and you may have a mine which is always losing one day, and if you put a better manager over it, it may be making a profit.

621. There is the other question, the total stock of precious metals in existence available for the use of the world; have you any observations to make upon the problems that that question suggests?—I think I may say that the best statisticians, as a rule, have discouraged any attempt to make such estimates with any confidence, and I believe that the Committee of 1876 were very strong upon the subject, and such estimates were hardly permitted and were not gone into. And I must say that I am disposed to agree with them as to the extreme difficulty of forming any conjecture even as to the amount of the precious metals, the stock as one would call it, whether in circulation or in private hoards, whether you can arrive at any satisfactory figures at all. I think that what I have mentioned with reference to the United States, and what has become of the stock there, is sufficient to show that there are very great difficulties indeed in the matter. I have got here with me Mr. Soetbeer's statement upon the subject, which I can put in if it is thought necessary.

622. I think it would be as well?—But he only gives it, I may say, as it were under protest; and I bring along with it another statement which is of a very different kind indeed, and that is a statement of the amount of gold in the banks and State treasuries of the different countries named, because that is a thing which you can see. But if you compare the two together, and try to find what has become of the total estimated stock of the metal in the country, as distinguished from the amount that is in the banks, I do not think that you can arrive at any satisfactory figures at all. Mr. Soetbeer only gives the statement for what it is worth, and I must say it would be very difficult indeed to rest satisfied with it. And I should like to add with reference to it that, of course, even if you do get a correct statement of what you would call the stock of coin in a country, that it may be used in very different ways indeed. Some of it may be actively circulating, and a great deal of it may be circulating only at occasional intervals, just as the coin is used in paying the revenue of the Government of India once a year or once a half year or so, and

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that other parts of it for all that is known may be kept out of sight and hoarded in some way or other; it is impossible to tell. But it is quite impossible to assume that the difference between the whole stock of gold in a country and what is in the banks is actively circulating according to these estimates.

623. Would not an estimate in which the limit of error was even 30 per cent. be better than no estimate at all?—I think if the limit of error is so wide as that it would make it, with reference to this subject, of comparatively little value. I should be afraid of the figures altogether; and then I attach much more importance perhaps than others would do to the character of the use of the stock, and that unless you can get some estimate of how the stock is actually used, as well as an estimate of the stock itself, it would not be of so very much moment.

624. But still it is evident that for certain inquiries connected with our subject, it would be very important to know what proportion of the total stock was annually added to it from mines?—I think it might be important, but I confess it seems to me so impossible to get at it, that there is very little use trying. I may observe that on former occasions I have had occasion more than once to notice that when there is any great pressure in the money market it is wonderful from what unexpected quarters gold seems to come. Sometimes it seems that do what you like in putting up the bank rate, and making the rate for money in Lombard Street very dear, putting it up to 5, 6, or 7 per cent., nothing seems to happen, but if you go up to 9 per cent. the gold seems to come in a flow, and where it comes from I find that no one very well can tell.

625. (*Mr. Birch.*) That depends very much on the rate of interest in the different countries from which we attract gold. When we raise the rate we must raise it to a point, that supposing the rate of interest in the United States is 4 four cent. people can bring over and employ their money, plus the expense of bringing it over?—What seems to me the interesting point in the matter is this, that apparently there are different kinds of money; that money will come out to you at 5 per cent. some kind, and another kind you won't get under 7 or 8 or 9 per cent. The pressure seems to act upon a new layer or stock of money as it were, so that you can never tell exactly how the stock of gold is used throughout the world.

626. The rate raised here would not materially affect the gold in this country; you must attract it from abroad; the gold here is in constant use?—I am not quite sure of that, because I think I have observed that the raising of the rate attracts money out of the provinces, and seems to bring more money into the banks in some way. Where it comes from I cannot tell.

627. (*Chairman.*) England is perhaps about the only country where you could arrive at it with tolerable certainty; because I think there is very little hoarding in England?—I should like to know; I do not know.

628. (*Mr. Birch.*) What you mean is this, that the banks in the country have certain accumulations of money which they hold in their till and do not send up to London to be employed when they can only get 1 or 2 per cent. for it. Directly they can get so much more they send it up and employ it to the last farthing, which probably they would not if they only got a small rate of interest?—I think that is very important, but what I am a little doubtful about is, whether it is not the case that you get it out of private people's hands as well when the banks are offering 5 and 6 per cent. for deposits—whether that has not the effect of diminishing the loose money that people have about them.

629. (*Mr. Barbour.*) I understand you to say that the coining of silver by America under the Bland Bill probably led to an increased demand for gold in America. Did you say so?—No, I do not think I said so. I said that the coining of silver for the

Bland Bill was a set off to any diminution of the demand for silver elsewhere.

630. You did not say that the coining of silver led to an increased coining of gold?—I think what you refer to is that the present artificial arrangements of the United States altogether seem to have increased the demand for gold compared with what that country would otherwise have required.

631. All I want to ask is how that comes about?—Well, at the present moment the United States appear to keep in the Treasury and in the reserve banks a sum that by comparison with England I think would be admitted to be quite abnormal. We get on with a reserve of between 20,000,000*l.* and 25,000,000*l.* sterling, and if you add to that what is in the banks throughout the country, I do not think you would come to more than 30,000,000*l.* sterling, the Scotch and Irish Banks, or even if you add all the banks together according to that estimate that was put in by Mr. Palgrave, you would still be under 40,000,000*l.* sterling, I think. But there you find that in the United States you have 75,000,000*l.* sterling in the Treasury and in the National Banks together, and my impression is partly from communication with some gentlemen in the United States and partly from what I see in the newspapers, that they are generally apprehensive, and wish to keep very strong with reference to gold.

632. (*Sir T. Farrer.*) Is it not the case that there is a very large amount of bullion too?—There is a very large amount of bullion, but the 75,000,000*l.* includes both. The bullion is about 12,000,000*l.*, I think.

633. (*Mr. Barbour.*) On the other hand, you say there has been 50,000,000*l.* of silver coined, a large portion of which is circulating either in silver, or as silver certificates. Does not that reduce the demand for gold in America? If that silver was not circulating, would not its place be taken by gold in some form?—I think that would be so to some extent, although the silver is used apparently for small change mostly, to cover notes of small denominations.

634. So you have that to set against the large demand for gold?—That would be a set off *pro tanto*, of course, so far as gold could really be used in circulation if there were no silver circulating and no silver certificates.

635. (*Mr. Cohen.*) I think you stated that you could not give any idea about the amount of coin in the country?—I think not; I think it would be extremely difficult to form a very accurate idea.

636. Have you any impression as to whether the amount of coin in this country, gold or silver, has decreased or increased within the last 10 or 15 years?—I think we may say that the amount of gold coin has not increased very much for the reasons that have already been stated, at any rate, that it cannot have increased so much as it did in the previous 15 years. Whether there has been an actual diminution owing to the withdrawal of coin for use in the arts or otherwise, I cannot say.

637. We heard evidence yesterday as to the production of mines, that some mines could not produce silver under 3*s.* 6*d.* an ounce I think. Have you any information on that point?—I have no information upon that point, and, of course, I was rather more struck I may say with the statement that it could not be produced under 3*s.* 6*d.* an ounce unless wages fell, than with any other part of the statement, because that is really the important point to my mind, that the conditions are always changing, and also what is the cost of production at one place is not the cost at another.

638. But do you think any public department could get at that,—the Foreign Office or the Board of Trade?—I should say it would be extremely difficult unless it could be got through private information in the City.

639. You agree also as to the impossibility of finding out how much of the coined metal is used in re-coining?—I think there is not much difficulty with

reference to the coinage of a particular country. At the mints they would always be able, as a rule, to tell you how much of their own coinage comes to be re-coined absolutely, because it is light coin that comes in that would not be taken elsewhere, but there is no means of calculating, I should say, what amount of the coinages of particular countries goes to other countries, and is re-coined there.

640. Or absorbed here in the arts?—Or absorbed in the arts. The quantity of re-coinage is immense, I know.

641. (*Mr. Barbour.*) In the statement relating to British India, prepared by Mr. Murray, there is a column headed "Old silver re-coined," and that, I believe, is only British coin; it does not include the coin of native states, or five-franc pieces, or Austrian dollars?—I am not aware of what is the case with reference to India, but I do know with reference to other mints that the practice is to state what is the re-coinage of your own coins, and I think the United States exceptionally tells us what comes into the Mint from foreign coins as well, and with great detail, but I do not think that that practice is universal.

642. (*Mr. Cohen.*) Have you any opinion as to the quantity of light gold that is locked up in the banks?—I have no special information.

643. You have heard it stated to be 10,000,000*l.*?—I have seen statements of different kinds, but I have no information that I could put before the Commission.

644. Do you connect that at all with the scarcity, or the supposed scarcity, of gold in this country?—I should think not, because I should look for the scarcity of which you are talking in another direction altogether. Chiefly it would have an effect on small change actually in people's hands. If there was any real scarcity for small change it would be felt there, and, as regards money generally, that would have to be ascertained in a very different way from what would be supposed to be an actual scarcity or famine.

645. The next question is the one that I interpolated before. Do you not think that the common feeling among persons engaged in business other than bullion business is that the field for the sale of silver has very much fallen off, contrary to what you have established here?—I do not think there is anything contrary to what I have put down here.

646. You did not catch my question. The question is not whether it is contrary, but whether the people do not think generally that the field within which silver can be sold has very much fallen off, and the consumption has very much fallen off?—I could not say what is the precise impression that people have on the subject, but it seems that those who write upon it, and are acquainted with the facts, as a rule, attach most importance to the increase of the production of silver.

647. What I want to arrive at is whether you do not think it very likely that the fall in silver has been due to panic rather than glut or over-supply?—I should think not. I should think it is extremely unlikely that a panic would be lasting and prolonged to this extent, because the occasional fall in prices sets in motion so many other causes, and so many other things have to be adjusted to it that I do not think panic could be so very material. Panic is a thing that would have a momentary effect. It would not have an effect lasting over several years.

648. Would you advise that the Board of Trade should publish statistical information such as has been collected by this Commission and the Commission on the Depression of Trade, as regards the movement of the precious metals so as to inform the public? At present this is not done; all that is given is the increase and decrease in this country, and no general information as to consumption?—I think that as an officer of the Board of Trade that is hardly a question I should answer, because that involves difficulties as to how that should be done, and my advice should be given to the Board of Trade.

649. I will put it whether a department of the Government should not do that?—Well, I suppose we should say that some things are very desirable.

650. Except there is some special inquiry of this sort the public have no means of getting at any information on this subject?—Of course it would be very desirable that the Government should have means of getting more statistical information. I think that is a point upon which we may all agree, but as to getting things done practically, that is a very different question.

651. (*Sir T. Farrer.*) I suppose you would think that it would not be very desirable to publish figures unless you could be tolerably certain of their accuracy, and also tolerably certain that they would be of some use?—And also that when you undertake an investigation that you would be prepared to publish exactly the process you have followed, so as to enable people to judge of the value of your work. That is perhaps more important than any other.

652. But supposing it was possible to get any statistics as to the use of metals in the arts with accuracy and certainty, you would be disposed to advise that it should be undertaken?—I should think so. It seems to be an important matter.

653. (*Chairman.*) Have you any other point which you would wish to mention?—Well, there is one point that bears on the question of gold production to some extent, and also upon the question of what material has been available in this country, and that is that in addition to the ordinary bullion statistics which can be referred to, account ought to be taken in the ordinary imports and exports of merchandise of the import of gold and silver ore; and the import of silver ore especially seems to be rather material as it is valued at something like 1,000,000*l.* sterling per annum in this country, and that does not appear in the ordinary imports and exports of bullion, but appears in the statistics of merchandise; and if the Commission desire it, I shall put in a table bearing exactly upon this point, and giving the figures as far back as I can carry them. (*See Appendix III., G.*)

654. I think that would be very important?—That is an element which seems not to be taken into account anywhere, and which, if anything, rather tends to confirm the higher estimates of Mr. Soetbeer than the lower estimates of Sir Hector Hay, because it is undoubtedly an import of some little consequence in the matter. The United States and Spain and the South American countries are the countries chiefly from which this silver ore comes.

655. (*Mr. Birch.*) Not as it comes in lead. A great deal of silver comes in lead?—This is silver ore, or ore the greater part of which in value is silver.

The witness withdrew.

Mr. R. Giffen.
26 Nov. 1886.

Fourth Day.

Friday, 3rd December 1886.

PRESENT :

THE RIGHT HON. A. J. BALFOUR, M.P., the CHAIRMAN, presiding.

MR. D. M. BARBOUR.
MR. J. W. BIRCH.
MR. L. L. COHEN, M.P.
SIR T. H. FARRER, Bart.,

MR. C. W. FREMANTLE, C.B.
MR. W. H. HOULDSWORTH, M.P.
SIR JOHN LUBBOCK, Bart., M.P.
MR. J. R. BULLEN SMITH, C.S.I.

MR. GEO. H. MURRAY, *Secretary*.

Mr. R. Giffen.

3 Dec. 1886.

Mr. R. GIFFEN examined.

656. (*The Chairman.*) As I shall be obliged to leave very shortly, I have arranged with Sir Thomas Farrer, who has been good enough to relieve me, to conduct the examination of the new evidence you have to offer us; but there are one or two matters arising out of the evidence you gave us last time, on which you are perhaps in a position now to throw some more light. You have additional information, have you not, with reference to the difficulty of accounting for part of the gold which has been traced to the United States during the last 10 years, since the preparations for resuming specie payments began?—Yes, since I gave my evidence I have had the opportunity of reading a letter of the Secretary to the Treasury, dated the 2nd of March last. This is a letter from the Secretary to the Treasury in response to a resolution of the House of Representatives on the subject of the circulation of standard silver dollars and other matters, and this contains a statement which seems to me to bear upon what I said with reference to the quantity of gold that has been traced to the United States and that portion of it which it seemed to me you could not see where it was. The Secretary to the Treasury, in the course of this letter, makes the following statement. He says, "The 220,000,000 dollars of our own full and legal tender silver, if re coined at the same ratio as the vast and larger and controlling stocks of silver in Europe, might vanish like the full fourth of our 550,000,000 of dollars of gold coin, which fourth we cannot track or find, and yet have coined and counted, but have not seen depart, and so ascribe it in our tables to other banks and private hands." This statement of the Secretary to the Treasury seems to confirm what I said as to the difficulty of tracing some of the gold which we believe has gone to the United States within the last 10 years. One fourth of the 550,000,000 dollars is just about 28,000,000*l.* sterling, which the Secretary to the Treasury says he "cannot track or find."

657. Then all that the Secretary to the Treasury does is to confirm your statement, not to account for the difficulty which you yourself raised?—Yes, that it so. I thought it would be interesting to let the Commission know that the Secretary to the Treasury in the United States has made a very similar statement to what I made.

658. He is practically unable to throw any more light on the subject than you are yourself?—Apparently not.

659. (*Sir T. Farrer.*) May I ask, with reference to your former evidence, whether you know anything of any increase in demand for the purpose of manufacture of silver articles, arising from the present cheapness of silver?—It seems to me always a very important point that the use of silver or any other thing in different ways at different times depends very largely upon the price; and I was interested to observe the other day in the trade reports of the

Times, I think it was Monday last week, in a trade report from Sheffield, a statement to the effect that the cheapness of silver had increased the business of the manufacture of silver wares in Sheffield. That was a distinct statement in the trade report.

660. (*The Chairman.*) Is there any corresponding decrease in the use of gold in manufactures corresponding to its supposed appreciation?—Not that I am aware of, and I should doubt whether the amount of it would be so sensibly felt as to have much difference in manufactures, but I have not observed any statements upon the subject.

661. But you would anticipate, in accordance with the same law to which you have just referred, that if the use of silver has increased by its being cheapened, the use of gold must decrease by the appreciation of gold?—Yes, that if there was appreciation it would have many effects upon the uses of it in different directions, but what the precise effects would be it would be very difficult to trace.

662. (*Mr. Barbour.*) If silver has depreciated with reference to gold only, and not with reference to commodities, do you think there would be any extra inducement to employ silver in the arts?—I think that this is a statement with reference to the price of silver in gold, and although it would be difficult to trace the change between silver and other commodities, yet in this particular market there is an apparent fall which has the effect of cheapening the price of silver, at any rate for the time. We may assume, therefore, that some of the effects of a fall of price would follow, without going into the larger question of whether silver itself has changed, and how far, with reference to other commodities. In any case, I am merely noticing a specific statement in a trade report that the manufacture of silver wares has been stimulated by the fall in price.

663. (*Sir T. Farrer.*) Have you looked into the question of what general statements of prices there are which will throw any light upon the subject before us?—Since I gave evidence on the last occasion I have looked into it a little, and of course I have paid attention to the question of what statements there are regarding prices, as far as I know them to be in existence.

664. Would you mention what records of prices there are in any useful form which would assist us?—First of all I think I may notice the fact that there are a great many records of prices of different kinds, actual records of prices themselves, such as those contained in Tooke's *History of Prices*, and such as those contained in publications like *The Public Ledger*, *The Economist*, *The Statist*, and special trade journals of every kind. There are numerous records of prices. Then there are official prices, such as those published by the Board of Trade, which show the average prices of imports and exports obtained by dividing the values by the quantities; and there are similar official and unofficial records in foreign countries. These all

contain prices more or less in the rough, and what I have been particularly examining lately is records of prices in which an attempt is made at arrangement of some kind, so as to show a general result. For the present purpose it seems to me that the most important thing to get hold of, if we can, are prices arranged in some way or other so as to exhibit a general result and not merely prices in the rough, which are very difficult to follow indeed. And that is the point to which I have been addressing myself lately.

665. You mean prices in the first place so summarised as to show a general result and then collected for a series of years so as to show the comparative results in different years?—That is what I mean; that beyond merely getting the records of prices or knowing that they exist, it is desirable in an investigation of this kind, if there are any arranged tables, to look at these by preference, because they bring out a general result.

666. Will you mention what are the most important of the arrangements of this kind which have been made?—Well, I think of all the arrangements of this kind covering the last 50 years or so, and perhaps going back to the beginning of the present century, the most important are the following: There is first of all a study by Mr. Jevons on the fall of gold between 1845–50 and 1862, in which the prices from 1845–50 to 1862 are dealt with. This is one of the first papers in a book which has been published since Mr. Jevons' death, *Investigations in Currency and Finance*, and it was published originally as a distinct pamphlet in 1863, and that deals with the prices from 1845–50 down to 1862.

667. What is the nature of the prices which he deals with there?—They are chiefly wholesale prices in the London market—in fact, they are exclusively wholesale prices in the London market.

668. Wholesale prices in the London market?—Yes. Next is a study by Mr. Jevons, also in the same volume of *Investigations in Currency and Finance*, and the paper being one, I think, which he read to the Statistical Society in 1865, in which he deals with the prices from 1782 to 1865. These prices are based chiefly on the figures in Mr. Tooke's *History of Prices*, which I have already referred to.

669. Are these also the wholesale prices in the London market?—These are also the wholesale prices, and in fact much the same prices as are dealt with in the other investigation which he made, so far as the period between 1845–50 and 1862 is concerned. The second investigation relates to the same thing as the first. Then Mr. Jevons continued the latter investigation in a letter which he wrote to *The Economist* in 1869, and continuing the prices, I think, down to the year 1867.

670. Will you go on with your list?—Then the next arrangement of prices which I refer to is that of *The Economist* itself. This was an arrangement which was used by Mr. Newmarch in the Statistical Society's Journal in 1859, 1860, and 1861, and afterwards in the Annual Commercial History of *The Economist*, and this has been continued to the present time, much the same prices being dealt with as those dealt with by Mr. Jevons. Then, lately, for the last few years there have been published arranged prices of imports and exports of the United Kingdom. These are published in special reports of the Board of Trade, which were prepared by myself, the last one of these being circulated in 1885, and bringing down the figures to 1883, in the case of imports from the year 1854, and in the case of exports from the year 1840. The official reference to this paper is C.—4456, and that would contain the references to the previous reports of the same kind. Then there is a study by Mr. Sauerbeck in the last September number of the Statistical Society's Journal. Then you have had one or two studies by Mr. Palgrave with reference to French wholesale prices, and partly also containing a modification of *The Economist* tables, and these you will find in that memorandum which you have had before you, that was laid before the Depression of

Trade Commission. Then Mr. Soetbeer in this book, *Materialien, &c.*, which I referred to in my last examination, gives an arrangement of prices in Hamburg, beginning with the years 1847–50 and ending with the year 1885.

671. Shall you deal with Mr. Soetbeer's afterwards or will you tell us now?—I deal with them all afterwards. In addition, there are some American figures and attempts at an arrangement of prices to be referred to, although I do not set so much value by them, for reasons which will be stated. That seems to me to be a list of attempts at some kind of arrangement of prices in the last half century, as distinguished from mere records of prices themselves, of which there is, of course, an endless number.

672. Then in all these cases an attempt has been made to summarise the results by means of an index number. Will you explain exactly what that means?—They all use more or less what is called an index number, that is a means by which statisticians have endeavoured, in dealing with large masses of prices, and the prices of many articles, to arrive at some kind of average result.

673. Can you explain how that is obtained?—An index number consists of two things. The first part of it is the statement of the price of a particular thing for a series of years in the form of per-centages on the price of a particular year taken as a unit. Thus, if the price of wheat is 50s. at one time, you call that 100. That would be the unit from which you would start. Then if the price falls to 40s. that would appear in your table as a fall from 100 to 80. You would substitute 80 for the 40; and the first step in making an index number is to substitute for the expression of a price whatever the quotation may be, a unit of 100, and then work out the per-centage in reference to that unit.

674. On that particular article?—On that particular article, so that 100 is the unit in all cases, and of course it becomes extremely convenient for comparison. Then the second step is the addition of the prices of several articles so as to form an aggregate which may either be 100 or a multiple of 100, or any other sum, the expectation being that the variations in the items will be averaged in the aggregate so that an average rise or fall in a given group or groups of articles will be shown. I gave some illustrations of this, I may say in these reports which were laid before the Board of Trade upon the prices of imports and exports, and I think it can be stated quite easily how the thing would appear. If you take, for instance, three articles, and it does not matter what articles, but say wheat, sugar, and tea, each at the unit of 100. Of course, the aggregate of the unit is 300. Then suppose you have a change of prices by which the three articles would become relatively 90, 80, and 70, the addition of these would be 240, and then you would say that the average price had changed as 300 is to 240, although that might be different from the change in the percentage of prices of each particular article. The average is different from what each particular article is, and that is the essential principle of the second step in the index number.

675. Then you make your index number after the change bear the same proportion to the original unit 100 that the price at the subsequent time bears to the price at the first time?—That is the idea. It does not matter very much what starting point you take, because you have always a change in the relation, and the object is to average the changes in a group of articles so as to give you a general result for the group as distinguished from the special results which you obtain by looking at each article only.

675a. You add the number so changed together, and then compare that aggregate number with the original unit?—That is the idea, with the original aggregate unit.

676. Well, then, for convenience sake you make the original unit a large number?—For convenience sake it is highly convenient to make the aggregate either 100 or 1,000 or 10,000, because it shows the results

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almost immediately in the form of a per-centage. If the aggregate is not 100 or 1,000 or 10,000, but say 50 or 60, the difference in the aggregate from year to year would not show the per-centage rise or fall, but you would have to work out the per-centage; whereas, if it is 100, you see the per-centage in a moment, so that it is always convenient if the aggregate unit is 100, or 1,000, or 10,000, or some such figure as that.

677. Before we go any further, can you tell us in what manner these different statisticians have selected the prices on which they found their calculations? Is it from the price lists published in London?—The most of them are taken from price lists published in London. Of course that does not apply to the Board of Trade prices which I have referred to, which are the division of the values of particular articles of import and export by the quantity, so that is a price obtained in a different way. The others are the London market quotations, and of course that is a different thing from the average value of the whole mass of an article imported or exported.

678. The London market quotations of the prices in the market for the time being?—The price in the market for the time being. Mr. Sauerbeck has taken, I think, each month's prices and divided by 12, so as to give the mean for the year. Mr. Jevons takes two months, I think, in the year from Tooke's prices, and gives the mean of these two. *The Economist* in its index number has done much the same in each particular year. It takes the prices on the 1st of January and the 1st of July, and then gives the mean, and of course in a long investigation, I may say, covering a great series of years, it would not matter very much which is taken, because the small variations from month to month in a year would not as a rule be very material in a long investigation.

679. And where the heading comprises different articles at different prices, do you know at all what the process has been in selecting the prices? Cotton, of course, may embrace various descriptions of cotton, of which the prices may differ, and so on?—In some of the cases you will find,—and I think this especially applies to Mr. Jevons' work, and to *The Economist* index number, but it also applies to the other arrangements which I have mentioned,—you would have two or three prices for cotton or cotton articles; you would leave two or three columns for cotton or cotton articles, and of course that increases the weight of cotton, as will appear afterwards, in the aggregate number.

680. Then will you tell us what is the objection which has been commonly made to the process that you have mentioned?—Well, I may say that the matter was very much discussed in a Committee which sat in 1840 on Banks of Issue, with reference to some figures of that kind which Mr. Porter in his *Progress of the Nation* had referred to for the years 1833 to 1837. He had arrived at an index number of that kind and shown the variations from month to month and from year to year in regard to 50 articles. He did not give the details, but apparently a good many of the witnesses who were examined were in possession of the details, and there was a good deal of discussion about it, and Mr. Tooke raised the objection and insisted upon it most strongly that he found, for instance, an article like annatto, which was of very small aggregate value, and entered very little into the commerce of the country, counted in as of as much importance in the table as an article like wheat, which was very important; and the objection was that when articles of varying degrees of importance were treated equally, the aggregate did not really exhibit the average but only the mean of certain numbers. This was quite a true objection and quite valid theoretically, but it is practically dealt with in a variety of ways in the particular arrangements of figures to which I have referred. Mr. Jevons was quite cognisant of it, Mr. Newmarch was also quite cognisant of it, and they tried to meet it in various ways so as to give different relative importance to different articles. And there are other reasons, I think,

why the objection practically is not of so much weight as it seems to be theoretically.

681. With regard to these various calculations of figures, looking at them together, to what do they relate?—They relate chiefly, I think, to English wholesale prices, almost I might say to London wholesale prices, with the exception, of course, of the Indian figures, which are a totally different matter to the others, which relate chiefly to London wholesale prices.

682. (*The Chairman.*) Except Mr. Soetbeer?—With the exceptions to be mentioned, the exceptions are that Mr. Soetbeer deals with Hamburg prices; but not exclusively so, because he introduces into his final index number 14 articles of English export trade, which he takes from the export tables of the Board of Trade. And the other exception is the French figures which Mr. Palgrave deals with in that memorandum, but I consider that in recent years the course of French wholesale prices has been, and must have been, much the same as the course of London wholesale prices. It would not be the case if we went back for a very long period, but I think in recent years that that is what we should expect, and apparently it is what has happened, so that practically it is much the same thing as getting London wholesale prices over again.

683. London wholesale prices may be taken, I suppose, as the index of the prices throughout the United Kingdom?—Not only so, but to some extent an index of the prices of a great many articles which enter into the general foreign trade of the world, and I think it is in that respect that Mr. Soetbeer takes the prices of English exports from the Board of Trade returns.

684. But would not the prices in foreign countries be affected by such things as their fiscal systems, the taxes, and legislation with respect to the particular articles?—No doubt, and I propose to state afterwards the importance of taking prices from a great many different places. I am merely calling attention at this moment to the fact that what are dealt with here are London wholesale prices mainly.

685. I do not know whether you mentioned as an exception the Indian prices?—I mentioned that exception, yes.

686. Then which do you think of these the most important?—I think that for scientific purposes and generally, owing to its being almost the first important work of the kind, the greatest value must be attached to that work of Mr. Jevons which I have referred to which is published in that volume of his investigations of currency and finance. The first investigation of all which was published as a pamphlet under the title of "A serious fall in the value of gold" was a work which attracted a great deal of attention at the time, and altogether, from Mr. Jevons' rank as a statistician and economist, we must attach the greatest value, I think, to that work which he did.

687. Then some steps have been taken to meet the objection which you have just said was raised as to the relative importance of different articles which were originally represented as all equal?—This was done by Mr. Jevons by giving practically more numbers than one to certain articles of importance, such as cotton. I think that in regard to cotton he gives it three numbers really. He takes in cotton prices three times over, so that he makes cotton more important, in the number of about 40 articles which he deals with, than any other article to which he only gives one number. That is one of the ways by which Mr. Jevons circumvented the objection of giving equal importance to all the different articles dealt with.

688. (*Sir John Lubbock.*) Did he count cotton as three?—He counted cotton practically as three, and you will see that that is done with reference to other things. You will see that it is a very simple thing, a rule of thumb method, assigning more importance to one class of article than to any other.

689. (*Sir T. Farrer.*) Did he simply treble the number or take different qualities?—He really took different prices for different qualities of cotton.

690. (*Mr. Houldsworth.*) Did he do that arbitrarily or on the principle of quantity?—I am afraid he did it almost quite arbitrarily. He knew that certain articles were prominent and bulky and important, and roughly he assigned a greater weight to them than he did to other articles. There was no attempt at assigning relative importance to each article upon a definite principle.

691. (*Sir T. Farrer.*) To what extent do you think that defect important?—I do not think it is practically so important with reference to these investigations which have been made as it might seem to be at first sight, because, in fact, almost all the important prices, moved in much the same direction at different times. They may have moved to a different extent, but any possible correction would only affect the quantity of the rise or fall at different times, owing to the general changes in almost the whole list of articles being in the same direction in the periods investigated.

692. Supposing that there was a very great difference in important articles, such, for instance, as cotton at the time of the American War, would not that very materially affect the corrections of the general result?—That is so in point of fact. As Mr. Jevons himself notices, that does create a certain difference, which you can see between what he shows and what *The Economist* index number shows. He notices that at that very time we speak of, 1864–65, starting from the same period, namely, 1845–50, *The Economist* shows a somewhat greater rise than what Mr. Jevons shows between 1845–50 and 1862, and the difference he explains is due to the fact that *The Economist* has four cotton articles out of 22, whereas he has only three out of about 50, he says 40 or 50. I have not got the reference quite straight, but I think it is either 40 or 50. *The Economist* has four articles out of 22, so that when you had that great rise owing to the American war, *The Economist* index number went up more than what Mr. Jevons' index number went up. These things can be allowed for upon an inspection of the tables always.

693. Then what do you say with respect to Mr. Jevons' investigations for an earlier period?—I attach a good deal of importance to the carrying back of the figures a good way before the period which is immediately dealt with, and Mr. Jevons' investigations from 1782 to 1865 seem to me to be very important. They show a rise from 1782 to the beginning of the century, that is, taking the aggregate of the index number, and then with fluctuations every ten years or so and minor fluctuations, they show a fall from the beginning of the century down to 1845–50. Since then there was a movement upwards down to about 1862, and still a rise of prices as late as 1867 compared with 1845–50. Of course Mr. Jevons' figures did not come down later than that but we know from *The Economist* index number that the rise was maintained or went on till about 1873, and since then there has been a fall resembling in some respects the fall from the beginning of the century down to 1845–50, but a little more rapid.

694. I think you said that Mr. Jevons' investigations of the earlier period were founded to a great extent upon Tooke's History of Prices?—He states that he takes the prices mainly from Mr. Tooke's History.

695. And that is a book of very considerable authority?—There is no doubt that, as far as the prices are concerned, it is almost the only record which can very conveniently be referred to.

696. Mr. Jevons had no opportunity of consulting original price lists, original authorities, for that earlier period, I suppose?—Only to a very limited extent, if any.

697. Then with respect to *The Economist* index number, in what way does that compare with Mr. Jevons'?—It is much the same as Mr. Jevons', the articles dealt with being very much the same as Mr. Jevons' articles. I do not think it is quite so good in some respects as Mr. Jevons', especially for the reason,

which has already been mentioned, that too much weight appears to be given to cotton and cotton manufactures. I may also say that it seems to have been formed, if I may judge, in a comparatively accidental way. In the Statistical Society's Journal of 1859, 1860, and 1861, the prices of the 22 articles are shown by per-centages, each article separately, but they are not added together so as to form the aggregate index number of 2,200, which was afterwards formed. This was done apparently, after Mr. Jevons' first investigation appeared, so that the index number of *The Economist*, I should say, has been to some extent an accidental formation, but it is, roughly speaking, quite apart from this question of cotton, much the same as the index number of Mr. Jevons.

698. Was this due to Mr. Newmarch?—There is practically no doubt of that. I may say that he was the editor of the Statistical Society's Journal at the time. It was quite well known that it was his doing, and I do know in point of fact that it was Newmarch.

699. I think you have already mentioned what the difference in fluctuations was in consequence of the difference about cotton?—Yes.

700. Well, then, in both these cases there is no allowance made for the different importance of different articles founded upon any actual figures or facts, it is simply an estimate made by the statistician?—To some extent it is a rule of thumb practice in order to allow greater importance to the obviously important articles, but there is no fixed principle or any distinct objective standard followed in assigning the relative weight to the articles.

701. Then would you mention what is the general result of *The Economist* index number?—The general result of that number, continued to the present time, is that there was a fall after 1864–5, as I think you will see from these diagrams which your Secretary has prepared, a rise in 1871–3, and a fall since the latter date to the present time with the exception of a short recovery in 1881–3, so that the prices are now, after being higher, somewhat under the level of 1845–50.

702. Is that a diagram which you have had prepared?—No, this is a diagram which your Secretary has prepared, and which he has given me the advantage of looking at, and I think, if the Commission would look at it, it would be rather interesting just at this point, because the large diagram shows the very exceptional rise in 1864 in *The Economist* index number, owing to cotton. Then prices go down to 1868, 1869, and 1870, then they go up in 1873 very sharply, then they go down very sharply to 1879. After 1879 there is a rise, and then from 1882 almost to the present time there is a descent.

703. (*Mr. Houldsworth.*) Do they affirm pretty well what is given in Mr. Sauerbeck?—They correspond very well with what is given by Mr. Sauerbeck. The prices being the same practically dealt with, namely, London wholesale prices, the result ought to be pretty nearly the same, and the curves do correspond fairly well.

704. (*The Chairman.*) Perhaps it would be convenient at this time if you could tell us why *The Economist* index numbers appear to differ violently with regard to the year 1864 both from Dr. Soetbeer and still more from Mr. Sauerbeck?—It is chiefly the cotton, I believe.

705. So that you would prefer either of two other estimates to *The Economist's* curve?—I would not like to go so far as that. Of course, the true way to use figures of that kind is to compare them, and I should not like to go so far as that. I think we may say that there was an exceptional rise according to *The Economist's* index number in cotton, but apart from that I do not know but what the result is as fairly given as any of the others.

706. (*Sir T. Farrer.*) I suppose, if you wished to know what has been the actual rise or fall in the prices, it would be right to attach a very great value to cotton; cotton being so very important an article?—It raises a question as to what is the real relative

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Mr. R. Giffen. importance of articles; cotton is, no doubt, very important. Cotton and the textiles taken together are, no doubt, very important.

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707. The special rise in cotton would have nothing to do with the value of the precious metals, or of gold, but if you are regarding prices alone it is an important element, is it not?—It is a very important element in the question of prices. As to how far it is related to gold, I think I would postpone answering that at this moment.

708. I only mean to say that, if you are taking statistics of prices, there is nothing incorrect in taking the special rise of a very important article arising from special circumstances?—It is one of the things which you must have regard to. In dealing with a thing comprehensively you must deal with every fact.

709. Will you now explain what is the difference in the method that you have adopted at the Board of Trade in dealing with this question?—The main difference between any of the figures which have been mentioned, and those of the Board of Trade reports is that, dealing with the variations from year to year, allowance is made for the relative importance of each article according to the proportion of its value to the total value of imports and exports respectively; that is to say, I take the import trade and the export trade themselves, and I deal with each article according to its relative importance in that trade. That is purely an objective standard; it is not anything which I invent myself according to any rule of thumb method, but an objective standard which may or may not be of value.

710. Perhaps you would explain the exact method which you adopt in doing that?—The way in which this is done is to multiply the per-centage variation in price of any particular article by the proportionate number of the article, and divide by the sum of the proportionate numbers. It is really a very simple process, by which you allow for the relative weight of each article. You multiply the per-centage of rise or fall by the proportionate number that you have assigned to the article, and then you divide by the sum of the proportionate numbers.

711. Perhaps you will explain from the beginning, how you start?—You give a proportionate number, it appears in these tables, according to the importance of the article in the import trade. Say it is corn. I do not know exactly what the figures are, but suppose corn is 10 per cent. of the import trade, then the proportionate number assigned to it would be 10. Suppose cotton was 5 per cent. the proportionate number assigned to it would be 5, and so on.

712. Then it is founded entirely upon the imports? You take no account of what is produced in the country?—As regards the import trade it is founded entirely upon the imports, and as regards the export trade it is founded entirely upon the exports—a purely objective standard.

713. Then you take your figure at 10 for corn?—Or whatever it may be, supposing it to be 10,—I think it is about that, or from 6 to 10,—you make that the proportionate number.

714. The proportion out of the whole index number?—The proportion of the whole 100. I may say that in this way I do not get up to the index number of 100, because the number of articles in the imports for which you can get prices by dividing the values by the quantities is limited. Imports of that kind are only 81 per cent. of the total, and accordingly the aggregate index number for the imports, the unit which I dealt with, was 81·16, so as always to keep before the mind's eye that the proportion assigned to each article was its proportion of the total imports, and not merely the proportion of the total imports for which one was able to get prices in that way. The same with the exports. I could only get a smaller proportion of export articles for which it was possible to give prices in that way, and the aggregate index number accordingly is 65·8.

715. Then would you explain in what way you show the changes in prices?—The changes are shown by multiplying the per-centage of variation in the case of each article by the proportionate number, and then dividing by the sum of the numbers.

716. Then you take your proportion of the articles to the total imports, and the total exports for one year, you do not vary with each year?—The year I have taken is the year 1875, but you will find in these tables here that the materials are given for taking an index number from any other year that you please. The proportions are shown, and you can see that no material variation would be made by taking the proportions of any other year. And I may say that some time was spent upon this point in the office, and we ascertained that no material difference in the results would be made by taking any other year to find out what the proportions of the trade were. It does not make any material difference.

717. That either the proportions of the different articles to one another do not vary so much, or else the different changes in price of the different articles do not vary so much as to make your conclusions incorrect on account of any change in the relative importance of the different articles?—It is both ways. The proportions of the articles in our trade do not change so very much from year to year as to throw you out. And then, of course, the other question of change of prices would come in also, but there is no such difference in the course of prices as to be very material when the figures are dealt with in this way.

718. Can you say to what extent your results obtained by this process agree with or differ from those obtained by *The Economist*?—It seems to me that according to these diagrams which your Secretary has prepared, or rather according to the comparative table of index numbers which he has prepared, that the results are pretty well the same as those shown by *The Economist* index number; that is to say, that you have a rise of prices about 1864, and then you have a rise about 1873, and then you have a fall since the latter date, interrupted to a slight extent but not to a very large extent between 1881 and 1883. But I may say that in working out the totals with this calculation, which is very elaborate and difficult, I have not worked them out completely for a series of years, I have only taken certain years which I had reason to believe were either what I called maximum or minimum years of prices. I have not worked it out for every year; of course, it could be done with a little trouble.

719. Well, in any tables of this kind, by any of these methods, you take a certain description of article and you continue it all through, so that wheat at the beginning of the century is wheat at the present time; iron at the beginning of the century is iron at the present time; and so on. Did not the articles themselves change?—It is quite true that the articles themselves must change, many of them at least to a very large extent,—some may not change quite so much; but there is always that difficulty in the matter,—that you do not know that the price which you are dealing with at one period is the price of exactly the same thing which you are dealing with at another period. That is really an inherent difficulty in these matters, there is no doubt.

720. And it is impossible to get over it?—I do not think you can get over it, even in the case of what may seem to be very simple articles indeed. The simplest of all, perhaps, are the metals. You may know that copper is copper, but I do not know but what there may be, even in some of the metals, some changes in the specific descriptions which are quoted from time to time, and you may not always get the same articles unless you are very careful to see what you are doing.

721. Do we know, for instance, what is iron and what is steel?—I think, as regards an article like Scotch pig iron, there is some evidence with which we would be satisfied that the article is substantially the same.

722. With respect to steel, there has been the greatest difficulty, has there not, in knowing what to classify as steel?—We have had the greatest difficulty at the Board of Trade in knowing how to classify the exports of iron and steel, but how far there have been the same difficulties in the market quotations I am not so sure. I think the people engaged in business would always know what they were buying, and if one acquainted with the steel trade was making up the prices it might be possible to get the same price, a very long way back, for exactly the same thing, but I am not quite sure.

723. At any rate, articles do vary from time to time very much indeed, do they not?—There are great variations in articles, there is no doubt of that.

724. (*Mr. Barbour.*) Are there some articles which remain the same always, such as wheat?—I do not know that wheat remains the same always.

725. You think it varies also?—I have no reason to believe that the wheat brought to market now is the same thing as the English wheat of 500 years ago, for instance.

726. (*Sir T. Farrer.*) Is it not the fact that in the earlier part of the century, the quality of English wheat was so bad that there was difficulty in making bread of it?—That difficulty exists always in such an article as wheat. It varies from harvest to harvest, from generation to generation, and from country to country.

727. Whereas now, in consequence of importation from different parts of the world, wheat has arrived at a higher quality, or at any rate more regular quality?—I think if we go from articles like wheat to articles like meat we may be quite sure that the difference of quality is really enormous, or may be enormous. I may add, with reference to wheat, as it has been mentioned, that there is another cause of variations in price, from time to time, in the different mode of selling wheat which may be adopted. The practice of selling wheat by weight is coming universally into vogue, and that will make some difference, I think,—how much I could not say,—between the prices of the present time and the prices of former periods, when the sale took place by measure. Of course, when the sale was by measure and the sample happened to be very heavy, that would raise the price more than if the sale was to be by weight and you were always selling the same weight.

728. (*Sir T. Farrer.*) Is the sale now by the bushel at such a weight?—The practice of selling by weight or by weighed measure, as we call it, is growing very much, and such sales are converted into English prices of wheat at a certain uniform weight. A quarter is taken to be so many pounds of wheat, barley, or oats.

729. (*Mr. Birch.*) With regard to oats, or any other kind of grain, formerly, no matter what it weighed, you bought it by the quarter?—You bought it by the quarter, and then you allowed for the weight in the price.

730. If you buy a quarter of oats now you always ask whether it is 38 lbs. or 42 lbs., and buy accordingly. Now they sell entirely by weight?—Entirely by weight, and the price by weight would be entirely different from the price when you sell by measure in which the weight is allowed for roughly in the price.

731. (*Sir T. Farrer.*) Then with regard to Mr. Palgrave's French index, does that lead you, so far as it goes, to the same results?—I think the result is much the same. There is this point, with reference to Mr. Palgrave's statements, that he only goes back, I think, to 1865-69, so that he only shows the variation since that time; but since that time the variations which he shows in the French prices and in the corrected *Economist* tables which he gives are much the same as the variations of the *Economist* index number itself. There is not much that would turn upon any differences that appear.

732. Then he makes some allowances for the relative importance of different articles, does he not?—He does so, and the point is stated very fully in

that memorandum which was laid before the Trade Depression Commission, but even then I do not think that he quite adopts a purely objective standard. The calculation to some extent remains a rule of thumb.

733. Then with respect to Mr. Soetbeer's tables, have you anything to observe upon them?—Mr. Soetbeer's tables are very elaborate and very full, and he has 114 articles altogether, 100 of them being Hamburg articles. He has this merit, that he divides the articles distinctly into five or six large groups, and he gives an index number for each group, and then he works up finally to his aggregate index number by treating each group as the equal of the other, and he gives you the final index number in that way, so that he allows in the final index number for the relative importance of all the articles in a particular group by putting more articles into one group than what he puts into another; and I think, so far, if that is done intelligently that is a very good method to follow.

734. Then how do his conclusions agree with the English conclusions?—Mr. Soetbeer's results seem to be much the same in this way, that though he does not bring prices down quite to so low a point as *The Economist* index number itself—for instance, comparing the present time with 1845-50,—yet the course of the prices is much the same, that is to say, there is a curve upwards from about 1845-50 to about 1864; then a decline, followed by a curve upwards to about 1873; and then much the same fall in price after that, although not quite to so low a point as what is shown by *The Economist* index number. But I may say that there is some difference between Mr. Soetbeer's and the other prices even in detail; and you find it with reference to agricultural produce, that prices in Hamburg, if we are to take the statement, do not seem to have gone back quite so far as prices in London.

735. Is that in quite recent years?—Yes, the prices in Hamburg. For instance, where in London you find that the price has gone back now to the price in 1845-50, you find that that is not so in Hamburg. For instance, an article like oats. We find according to our English tables that the price has gone back pretty much to what it was in 1845-50, but in Mr. Soetbeer's tables we find that, taking 100 as the unit in 1845-50, the price in the last five years is 130, showing rather a rise and not going back to the same point.

736. Is that since the German protective duties?—It may be partly owing to the German protective duties, but I think partly it may also arise from the possibility that prices in Hamburg have not quite changed all through in the same way as prices in London.

737. You find something of that variation in Mr. Palgrave's table of the price of wheat in France, do you not?—In the price of wheat in France that is noticeable very conspicuously, but I am merely showing that there is a little difference between Mr. Soetbeer's and the other tables, and I think, perhaps, I should add that he appears to me to assign rather too much weight in his tables to one or two very small articles, such as hops, and this seems to affect the result to some extent, because hops have risen enormously in price in Hamburg, comparing 1845-50 with the present time—from 100 to 355, I think.

738. But I suppose hops are things which vary very much from time to time?—Hops vary very much in price, but being a small article, if you give it an equal value with oats, say, you may affect the average result a good deal.

739. Then you have looked at Mr. Sauerbeck's figures which you have referred to?—I have also looked at Mr. Sauerbeck's figures, and of course they deal with wholesale prices in London, and ought to give and do give very much the same result as *The Economist's* index number, with some variations; and they especially agree, I think, in the fall of prices from 1873 or thereabouts.

740. But Mr. Sauerbeck's tables, I suppose, are founded upon these other tables, are they not?—No,

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I do not think so. I think that to a large extent he has taken different price lists, and worked out the thing *de novo* for himself. But he takes pretty much the same articles, as far as I can judge. There are one or two important differences, as he includes, for instance, coal, which I think is not included, if my memory serves me rightly, either in Mr. Jevons' or in *The Economist's* index number. There are one or two matters of that kind in Mr. Sauerbeck's tables.

741. And do Mr. Sauerbeck's figures agree, on the whole, with the other tables?—I think, on the whole, there is no disagreement of a material kind, and at any rate you can see that from the comparisons and diagrams which your secretary has been good enough to draw up.

742. And if it is an independent investigation they affirm the other figures?—To a certain extent they affirm the other figures.

743. Then there are certain American figures that you have referred to?—The American figures that I have referred to are some that are contained in the 9th Report of the Director of the Mint of the United States, in which he deals with very many articles indeed,—the prices of articles in New York; and in which allowance is made for the prices being in paper at a certain period covered, and they are all reduced to gold prices, while the prices of all the articles are reduced to per-centages in quite the proper way, and these per-centages are added up and divided by the number of articles. But I am sorry to say that, following this method and with so many articles dealt with, the result does not appear to be quite satisfactory, because no allowance seems to be made, however roughly, for the relative importance of different articles. I have brought here with me a table showing what the aggregates are, and the index number in different years, in this table of the Director of the Mint, but it does not seem to have been continued since 1880, and I think it is subject to that observation, that allowance is not made sufficiently for the relative importance of the different articles. I may say, too, that articles are put in and dropped out without sufficient explanation, and that may throw you out a good deal. I do not know that the results are very materially different from anything that is shown by the London prices, because you have the course of prices to some extent the same as that which has been shown, but I am not quite satisfied with the table, for the reasons that I have stated. (*See Appendix III. H.*)

744. Then you would not rely very much upon that American table?—I would like a better American table of prices for comparison. I would not say that the result would be materially different when you did get a better table, but one likes to see the prices worked out more completely, so that you can follow it.

745. And I suppose that is the best and most authentic table that has been published in America?—So far as I am aware that is almost the only arranged table that I can speak about. There may have been others, and there are of course a great many records of prices in the United States which may be made use of, I believe, if the investigation was carried further.

746. But they do not exist in any summarised form?—I am not aware that they exist, that is all I can say.

747. (*Mr. Barbour.*) May I ask what is the date of that?—The ninth report of the Director of the Mint. I could not state the year, but the latest year to which the figures are brought down is the year 1880, and I propose to put in this table showing the numbers, for what they are worth.

748. (*Sir T. Farrer.*) Bearing in mind the various qualifications which you have made about these figures, can you tell us, subject to those qualifications, what are the general results of these different tables?—The final result, I should say, is that they show an average fall in these wholesale prices from the beginning of the century down to 1845–50; a rise from the latter date to 1864, continued, but with an intermediate

decline, to 1871–73; and a fall since 1871–73, which makes the average wholesale price lower now than for 50 years, and in fact lower than at any time during the present century. That is with reference to these wholesale prices.

749. Then going still farther back, can you make any comparisons with the prices of previous times?—This is of course a matter more of historical and antiquarian interest, and yet it may have some bearing on the question, because up to the end of last century—and we have the authority of Adam Smith for it so far as he investigated the subject—the appearance was that there had been a fall in the value of silver going on for several centuries; that is to say, that the prices of the more important articles appeared to rise. And this is brought out in a very interesting table contained in a paper on weights and measures read to the Royal Society in 1798, by Sir George Shuckburgh Evelyn. The rise from the time of the discovery of America to the beginning of the century, taking wheat, one or two other principal articles of agricultural produce, and labourers' wages, as a standard, is brought out as between 400 and 500 per cent. The table is really very interesting, because the author seems to have used an index number that in many respects is quite as good as any index number that has been used since. Of course it deals with very few articles, and the record is very defective. There are especially no manufactured articles in it. But still, as regards certain principal things, he seems to bring out a fall in the value of silver, and a rise in these commodities of between 400 and 500 per cent.

750. Do you suppose he had data for such things as labourers' wages?—There were no doubt some data in existence at that time, and he refers very clearly to the authorities from which he gets his figures. Of course there has been a great deal added to our information since that time as to that early period, and if the matter were gone into now I have no doubt that a great many corrections and emendations would have to be made in the work that was done, but as far as method goes it seems to be a very good table indeed, and there is no doubt also, I should think, that if you take an article like wheat as the test, that a great fall in the value of silver is shown between 1400 and 1800, and that was the conclusion of Adam Smith in a well-known chapter.

751. (*The Chairman.*) Does Sir George give any tables dealing similarly with gold prices?—He deals, of course, with silver prices, because silver was the standard money of England practically. He simply deals with the prices, but Adam Smith, of course, in dealing with the subject discusses it as a fall in the value of silver.

752. (*Sir T. Farrer.*) As we know the relation between gold and silver pretty well, that would tell us what the relation was?—I think you would find that if you were working them out into gold prices the fall in the value of gold would not come out nearly so great as the fall in the value of silver, because gold was rising relatively to silver all through these centuries, there is no doubt about that.

753. (*The Chairman.*) From 13 to 1?—From 13 and even from 11 to 1 to about 15 to 1, or even more.

754. (*Mr. Fremantle.*) In 1798?—Yes.

755. (*Sir T. Farrer.*) Down to the end of last century there seemed to be a tolerably continuous rise in silver prices, and the process has discontinued in this century?—The point seems to be that if we compare from century to century we seem to get a steady rise in prices or a steady fall in the value of silver from about 1200 to 1800. Of course, it is quite possible that the fluctuations in a particular period may have been different, but that is what seems to have been going on when we compare century with century. But since the beginning of the present century the course would seem to have been different, because the tendency has been for prices to fall, that is these wholesale prices, with the exception of the short interval between 1850 and 1873, have generally been falling, so that the course of prices in the present

century generally would seem to have been different from the course of prices for several centuries before.

756. (*The Chairman.*) But of course, when you talk of the centuries before 1800, you are talking of silver prices, you are not talking of prices up to the middle of this century, gold prices?—I am comparing them with the standard, but I think it is also clear that there would have been a fall even in gold prices, down to the beginning of the present century, if you work out the relation of gold to silver upon that table of Sir George Evelyn.

757. There must have been a fall in gold if there was 300 or 400 per cent. difference in the silver prices; a fall of 30 per cent., say?—That is quite true, but it is possible that that fall was not quite continuous. You would require to see when the change in the relation between gold and silver took place, and we must not speak too positively as to what would have happened in a particular century, if you put it into gold prices.

758. (*Mr. Barbour.*) But containing the whole time there must have been a rise in gold prices too?—Containing the whole time, there is undoubtedly a rise in gold prices.

759. (*Sir T. Farrer.*) A rise in gold prices as well as in silver prices?—As well as in silver prices.

760. And then the beginning of this century?—The process seems to have been in the other direction since the beginning of this century, with the exception of the interval between 1850 and 1873.

761. Then besides these prices which we have been dealing with, there are some tables of Indian prices; what have you to say about them?—These are the tables of Indian prices which are found in the Third Report of the Trade Depression Commission, and I am not quite clear whether Mr. Palgrave put them in, or how they were put in before the Trade Depression Commission, but I believe they were circulated separately as well.

762. (*Mr. Barbour.*) I know that Mr. Prinsep put in certain tables, and Mr. Palgrave worked out some figures from them?—These tables that were put in contained an index number, and they are signed by Mr. Prinsep. Well this index number relates to 10 articles, three being native grains of home consumption, to each of which the unit of 100 is assigned, making the aggregate for native grains 300; two being grains partly exported, namely rice and wheat, to which the unit of 100 each is also assigned, making the aggregate for these two, 200; and finally, five articles, almost exclusively of export, namely, cotton, castor oil, linseed, jute, and hides, to each of which also a unit of 100 is given, making the aggregate 500, and the aggregate of all being 1,000. So that the index number of India is thus a much smaller affair, of much narrower compass than any of the things which we have been dealing with, and of course it relates to a totally different field, and a totally different area of prices.

763. (*Sir T. Farrer.*) Then, taking the tables as they stand, what would the general result appear to be from them, supposing them to be trustworthy?—The general result appears to be a fall of nearly 20 per cent. in 1870–74 compared with 1865–69; a rise in 1875–79 compared with the previous quinquennial period, and with 1865–69; and finally a fall of about two per cent. in 1880–84 compared with 1870–74. These tables only cover about 20 years, and that is the result of them. You may say that there is a fall in the last five years of about 20 per cent. compared with the first five, but a fall of about two per cent. only in the last five years compared with the second five, that is to say with the period just before the drop in silver.

764. A fall of two per cent. compared with the period immediately before the fall in silver?—Yes, that is what they seem to show. Of course, if you take particular years, and the very latest year of all, the difference would be greater, and there seems to have been a greater fall.

765. Then have you anything to observe upon the way in which these results have been obtained?—I

think, if I may say so in presence of Mr. Barbour, that the assignment of relative importance is not properly attended to in forming this table, that it is somewhat arbitrary in construction altogether. For instance, one of the articles in the last group which has fallen heavily is castor oil, which hardly seems to me to be of equal importance with rice and wheat, which have not fallen at all, comparing 1880–84 with 1870–74.

766. Then do you think the number of articles taken is sufficient to enable persons to draw general conclusions from it?—I am afraid not. I think you ought to have had more articles if you are to deal with the matter satisfactorily at all.

767. Then have you anything to observe upon the mode in which the particular prices given have been taken?—I am not quite satisfied with the mode of arriving at the prices of the first five articles on the list. The mean of the prices in certain markets is taken; that is to say, in markets in different parts of India, which may be very widely separated from each other, and although the range of these prices is very different, while no allowance is made for the relative importance of the markets in any way. I am a little doubtful whether the rise in rice would not come out more than it does if Rangoon and Patna were assigned greater importance than they are assigned by this mode of arriving at a mean price.

768. But assuming that we obtain general results from them; the result would seem to be that there has been no such fall in India lately as there has been in this country?—I think it is apparent, not only from these arranged figures, but from the prices themselves, if you look at them, that there has been no such fall in prices in India in the last 10 or 15 years as there has been in London wholesale prices. I think that would be a very safe thing to say.

769. And on the other hand there does not seem to be any such rise in prices as might have been anticipated from a very large depreciation in silver?—That I must not go into. I would not like to say off-hand what should have happened from a depreciation of silver.

770. That perhaps is not a fair question, but there does not seem to be any great rise in prices in India?—It is quite evident, I think, that there has been no great rise in prices if these articles and markets are taken as the test.

771. Since the depreciation of silver?—I should admit that, but then I am not prepared to say that the depreciation of silver ought to have led to a great rise in prices.

772. (*Mr. Cohen.*) Would you not be prepared to admit that, taking the last five years, prices have fallen in India as reckoned in silver?—There is no doubt about that.

773. These figures establish that?—That there has been a tendency to fall, that prices are lower at the end of five years than in the beginning of the period.

774. Taking the index number established to be lower, you do not question that result?—I do not question that prices at the end are lower than in the beginning, but I do not think there is a large fall in the index number comparing the last five years with the five years 1870–74.

775. The next number is about three lower; you would not question that, would you?—That is so small a difference that it is not enough to reason about in a matter of this kind. You ought to take into account that the number is quite arbitrary, and that is not a result to reason about.

776. What I want to get at is that you do not challenge the figures which have been put in by Mr. Prinsep and Mr. Palgrave showing the movement of prices in India for the last 15 years?—Well, if it is put to me in that way, I must also add that I do not admit the correctness.

777. (*The Chairman.*) I understand your view is that, while you may take these figures as giving a general conclusion, you cannot draw any accurate

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Mr. R. Giffen. deductions from small variations?—That is the point that I think very important, yes.

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778. (*Mr. Cohen.*) If the variation is but a small one, you cannot make a large one out of it. You can conclude that prices have been steady and not varied, because there is a small variation, just as you can say there has been a heavy movement in prices because there has been a large one?—Yes, but I have been explaining that I do not think there are sufficient materials to constitute a good average in these tables showing an index number.

779. As far as they go, you would accept them, would you not?—But it is not a good index number, and I would not even go so far as to say that I accept them even in detail.

780. (*Mr. Barbour.*) There is one question I should like to ask. Have you any reason to suppose that if the index number were based upon a wider series of prices the result might have been different?—I have not been able to investigate the figures sufficiently in India. Nobody would like more than I would to see a very good study of the Indian prices. Each place I should like to see taken by itself, and all the articles belonging to that place, and a good index number formed for perhaps about 50 places, and if you could include wages as well, so much the better. Then I think you might have something which would enable you to arrive at very interesting conclusions.

781. (*The Chairman.*) You are asking more for India than you have given us for England, have you not?—I am, certainly; but there is one reason why you would not require to have so many places in England, that it is a much smaller place than India, and the facilities for communication are very great; but I should certainly like, if the investigation is continued, to see a much larger amount of information even for the United Kingdom.

782. (*Sir T. Farrer.*) But if I understand you, you do not place nearly as great a reliance upon the results obtained by means of these figures obtained for India as we do upon the results obtained for the United Kingdom?—I do not think the index number is quite so comprehensive or quite so good.

783. (*Mr. Cohen.*) For all that, as regards these figures themselves, they are reliable, surely, as between one period and another; the same fault would range throughout?—Well, if I might make a remark,—it is not in any offensive way that I am going to speak it,—there are a great many prices for India, but they are published without any note or comment of any kind, and without explanations of apparent discrepancies from year to year, or between place and place. That seemed to me very important, and at any rate the prices would be much more useful to outsiders like myself if they were carefully annotated and investigated, and if they showed on the face of them some evidence that a good statistician had directed the inquiry, and had investigated all the apparent discrepancies.

784. (*Mr. Barbour.*) Are you not aware that in India the means of communication are very defective in many cases?—I quite believe that that is the case, and that is one reason why I should like prices from a great many places.

785. And are you not aware that India is a country which in many parts is especially subject to drought?—That is so, undoubtedly.

786. And where a country is subject to drought, and the means of communication are very defective, you would expect great variations in the prices of agricultural produce from year to year?—I should be less surprised at it than I should be in a place like London, but then I should also like, when I have the figures put before me, to have notes put indicating what had happened really in those years.

787. Have you at all studied these figures with reference to the various periods at which famines have been reported in India, and if so have you found prices have varied very much according to famines?—Not sufficiently so, because a good many figures I have seen are not accompanied by the necessary explana-

tions. It may be that the thing exists in other figures in the India Office, but I have not had them.

788. For instance, if you look at the figures in statement D., taking Jowar for 1875, 1876, 1877, 1878, 1879, and 1880, you will find that in 1875 it was cheap, in 1876 cheap, in 1877, 1878, 1879 there was a remarkable rise, and in 1880 it became cheap again?—That seems to be so from the figures.

789. Well, was there not one of the severest famines on record in the year 1877, 1878, which would account for the excessive dearness in 1877, 1878, 1879, and the cheapness before and afterwards?—I am not able to go into points of that kind. All I am pointing out is that the explanation is not on the face of the tables, and that notes would be useful.

790. I was merely wishing to bring out the fact that this extraordinary variation in price is very often due to famine?—I should quite believe that, but I think there are many other variations. This point has come upon me unexpectedly, but I think there are other variations which would not be so accounted for, and which I should like to see investigated, and comparisons between place and place.

791. Would you point out one of these variations?—I think that generally,—I do not know whether these are the materials from which I made my observations,—but generally, if you look at statement A., you will find, for instance, with regard to Jowar, that uniformly at Surat the figure seems to be much larger, that is, I suppose, from the way the tables are made up, the price much lower, than at any of the other places on the list. And I should like to see, when I find things of that kind, where the difference is really so great, that some person, in editing the table, had paid attention to the matter and had made inquiries regarding it. It would give me much greater confidence in the figures if there were notes of that kind.

792. (*The Chairman.*) But the fact that the variation was caused by famine, is not that an additional reason for giving explanatory notes and tables?—I should like it, certainly, for all purposes.

793. (*Sir T. Farrer.*) Do you think that the figures are sufficiently trustworthy to enable one to say that there has not been a great rise of prices in India?—I should not like to express an opinion till I see better and more comprehensive figures, and a greater number of articles.

794. All that you have given us hitherto applies to wholesale prices, and principally to the wholesale prices in the London market. You have not given us anything with regard to the prices of labour or of services?—Well, on that point I am not aware of any arranged tables relating to retail prices, nor of any very good tables in which the principle of an index number is used relating to wages. Of course, there are a great many original records of different kinds in existence with reference to wages, although I doubt if there is anything at all which could be used for an investigation of this kind with reference to retail prices.

795. Let us keep retail prices separate. As regards the price of labour, which we may divide into professional remuneration, salaries, and wages,—I think you say that there are no tables that would give us anything like an index number or anything like the general results that you have got out for the wholesale prices?—No continuous tables. There may be some other mode of arriving at the final result, but no continuous tables of that kind that I am aware of.

796. On the whole, do not the investigations which have been made by yourself and by other statisticians, Mr. Courcelle-Seneuil, Mr. Atkinson of Boston, and Professor Leone Levi here, all point in the direction of a rise in wages?—I think that from all that I have observed you may say that there has been a very general rise of wages in Europe, in this country and in the United States, and I think I may say also in India, in the last 50 years. At any rate, there seemed to be a great rise in wages from about 1850 down to 1873; but what the exact course of the movement in wages and still more in salaries has been in short

periods, in such a period for instance as the last 10 years, I do not think there are any means of following out very well.

797. (*Mr. Cohen.*) Would you include all Europe in your answer?—Well, part of Europe. I speak especially of France and Germany, Switzerland, Italy, and the northern countries of Europe. As to Austria and Hungary and the south-eastern countries, and Russia, I am not aware that I could speak at all.

798. (*Mr. Fremantle.*) Then what has been the course since 1873?—This is just the difficulty. You can trace a rise of wages if you take a very long period into consideration—50 years; but what the precise course has been since 1873 in particular, it is very difficult to follow out. We know that in some cases, particularly in the coal and iron trades, wages have gone down since that time, but what the average reduction would be, if we were to take the whole country into account, it would be very difficult indeed to say.

799. (*The Chairman.*) Would it not be possible to get from the books of eminent firms in leading industries what variations had occurred in the wages that they were concerned with?—I think that when some information which we are now getting from the Board of Trade is published it will throw a good deal of light even upon this point, but the difficulty is this, that it becomes absolutely necessary to allow for the relative importance of different kinds of wages, and the constituents of the labour market, if one may say so, change from period to period. You have really got substantially, when you come to an investigation of this kind, to form an average for the whole community, as it were, at one period, which is a very difficult thing, and compare it with the average at another period.

800. But are these sources of error greater as regards labour than they are as regards commodities?—The difficulty is that we cannot get the figures at all. If we could get them they would be free from error to a very large extent, because you would make them up into a general average for the whole community, but the difficulty is to get the records.

801. Could we not call members of leading firms in the most important industries?—Perhaps.

802. (*Sir T. Farrer.*) We have, we know, most elaborate returns of the wages in one very important employment, in ships?—Yes.

803. We have very elaborate returns of seamen's wages, in fact we have the articles of all the ships. We have found very great difficulty, have we not, in comparing and classifying those so as to compare one period with another in consequence of the very great change in the character of the employment?—The difficulty I consider to be very serious indeed, and I may say that in the return we are now preparing at the Board of Trade we see the difficulty continually. The classification in most manufactures is so minute that it is very difficult to assign relative importance even in the return of wages which you would get from a particular firm. They would show you wages beginning at 40s. and going down to 15s. a week, and what the real average would be upon a proper statistical investigation would be very difficult to tell, and how that should be used to work up to a general average for the whole country, would also be very difficult. I do not say that it is impossible to arrive at some good result by careful manipulation and calculation, but still it would require a good deal of arrangement indeed to bring out general results of wages to show what they were, say at intervals of 10 years, since 1845–50.

804. You have told us that there is a considerable difficulty even with regard to wholesale prices from the change in the character of the articles which we place under the same denomination at different times?—Yes, that is so.

805. And that that causes a necessary defect in any statistics of the kind, a necessary cause of inaccuracy. That difficulty is a much greater one in the case of labour, is it not?—I should say that it is a necessary cause of imperfection in the data, and constitutes a

great difficulty in handling them so as to arrive at the final result.

806. So as to make sure, when you are speaking of labour at one period and another, that you are speaking of the same thing?—Yes; and there is also this point. I believe it is the case, for instance, in the United Kingdom that a great levelling of wages up to the metropolitan level has been going on for the last 20 years; so the effect of that would be that wages, if you take the metropolis as a standard, hardly seem to rise, but if you take a place like Glasgow, Manchester, or Dundee, you have a much greater rise of wages than what you seem to have for the metropolis, and the problem for the statistician is how to set off the one against the other and to arrive at a true average for the whole country.

807. Then what you say with respect to wages applies, I suppose, also to salaries and to professional services, that there is no record that would enable you to compare those at different periods?—I think, perhaps, that as regards the latter there are some materials in the income tax returns, but they would require to be manipulated and studied a great deal before you could make much out of them. I do not know how far it would be possible to make anything out of that.

808. (*Mr. Houldsworth.*) Did I understand that an attempt was going to be made with reference to wages?—We are getting up a great deal with regard to wages at the Board of Trade now.

809. Would it be available for us?—I am afraid I won't be in time for the Commission, at least I should doubt it very much. If there is anything in it I shall be in communication with the Secretary, and I shall let him know.

810. (*Sir T. Farrer.*) But your impression on the whole, from all you have gathered, is that wages have been on the rise up to 1873–74?—There is no doubt of that, comparing the present time with 1845–50, there has been an enormous rise in money wages. There is no doubt of the fact, but what the exact course of the history has been, and how far there is a change in money wages, comparing 1873 for instance with the present time, I do not think there are sufficient materials in existence almost to form a judgment, at any rate not to any fine degree of accuracy.

811. But during that long period, during which you have told us there was a considerable fall in wholesale prices, there has been on the whole a considerable rise in money wages?—I do not know that there has been a great fall of wholesale prices, say between 1845–50 and the present time, but at any rate there has been no rise, and yet wages have risen greatly. What the actual course of wages has been in the last 10 or 15 years when wholesale prices have been falling largely is a little uncertain. It seems certain they have not risen but on the average they may have fallen a little, though how much I know of no means of ascertaining.

812. (*Mr. Birch.*) But the most important period for us is the period since 1873. Surely there are regular standards of artisans' wages, people paid so much an hour; there would be no difficulty in obtaining information on this head?—And then you ascertain particular facts, but the difficulty is to work them up to a general average.

813. It would give us some idea. Take London, for instance. In 1873 a firm paid so much an hour to a painter; now they pay so much, and the hours of labour are so many. It may not be so accurate as your calculations generally are, but we may go a long way towards what we desire to ascertain?—You would have to ascertain the proportion of painters at one time to the rest of the community, and a great deal besides of much difficulty, such as whether the employment was constant, and many other things of that kind. The difficulties are really very great indeed. I do not say they cannot be got over, but you require to have a study of the tables, and you must not speak too quickly on the change of wages. In this matter great accuracy may be necessary. An average variation of 5 per cent. say in the wages of the community would

Mr. R. Giffen. be very difficult to ascertain, and the difference on the wages 10 years ago and now may not be more than that.

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814. And agricultural labourers again. I think you may arrive at tolerable accuracy there?—Even in agricultural labour it would be very dangerous to take the figures of a particular place only, and not investigate the whole subject.

815. (*Sir T. Farrer.*) Then there is another class of payments that I should like to ask you about, what we may call services, such as for instance railway fares, freights of ships; are there any data for ascertaining whether those have risen or fallen?—Well, as to freights I think you will find a table of freights, unhappily it is for a short period only, in the evidence which I gave before the Commission on Trade Depression, and that shows no doubt a considerable fall in rates in the last 10 or 15 years; but that table is not continued very far back, and it would be very difficult to make comparisons for a long period, although I have no doubt practically, considering the subject along with others, that there must have been a great reduction in freights.

816. Railway fares and rates?—Railway fares have been practically reduced in this way, I think, that there is more third-class travelling, and that the third-class carriages are better. Even if the fares remain the same you have points like that that you would have to consider with respect to services of that kind. Railway rates are of most importance in America. There can be no doubt that rates for freight have fallen very much indeed—the rates for through freights; I am not quite sure as to rates generally.

817. Are you aware that Mr. Atkinson states that the reduction of rates in any one year in recent years is equal to the whole money spent upon railways? In that year the reduction of rates has been so great that if the rate of the previous year had been paid it would have paid for the making of the railways for that year?—I have no doubt there is great reduction; but I think it is chiefly through rates.

818. What you have told us has been with respect to wholesale prices. You have nothing of the same sort with respect to retail prices, have you?—I doubt if it would be possible even to get retail prices over a long period. The thing is really so difficult, how a retail price is constituted.

819. Do retail prices follow wholesale prices generally, and to what extent?—I think there is a very important matter in connexion with prices, and it is noticed by Mr. Jevons in that first essay that I referred to, in which he deals with what he calls minor commodities, as well as the principal commodities that he refers to. His principal subject is about 39 or 40 principal commodities, but then he makes a longer list, and the longer list includes altogether 118 commodities, and dealing with what he calls the minor commodities he finds that between 1845–50 and 1862, while the big commodities that he was dealing with rose about 16 per cent. the minor commodities only rose about six per cent., so that although there was an average increase of prices all round, yet the increase in the minor commodities was not so great as the increase in the chief wholesale commodities. Then you have to take into account the retail prices as well, and I think there is a good reason why the retail prices should not always change as the wholesale prices change, at any rate not to the same degree. The reason is, that the price of an article retail includes not only the price of the raw material but the cost of distribution, and to some extent the cost of manipulation as well, so that unless the cost of manipulation and cost of distribution change exactly as the raw material changes, you might have a much greater rise or fall in the raw material than what you have in the article that is finally dealt with by the retailer, and I think that wheat and bread offer a very good illustration. For instance, a rise in wheat from 30s. to 60s. per quarter, that is a rise of 100 per cent., would be equal to a rise in the price of the raw material of bread from 3d. to 6d. the 4lb. loaf; but

assuming the price of the loaf when wheat is 30s. to be 6d., namely 3d. for the raw material, and 3d. for manufacture and distribution, the price at 60s. would be 9d. only, that is a rise from 6d. to 9d. in the manufactured article sold retail, or only 50 per cent. as compared with a rise of 100 per cent. in the raw material. There are other articles, such as clothing and ladies' dresses, and all kinds of articles, to which even stronger remarks would apply as to the difference between the variation in the price of the raw material, and the variation in the price of the manufactured article as sold retail.

820. (*Mr. Birch.*) Don't you think that this co-operative stores movement has tended materially to give people generally the benefit of every fall in price?—In that you still have the great difference that I speak of. That may be the tendency in future, but I am speaking now of things actually as they exist.

821. (*Sir T. Farrer.*) You say that retail prices do not generally follow wholesale prices, or at any rate follow them in a very irregular way?—They do not necessarily follow wholesale prices, at any rate not in the same degree. That is a point which I should like to make.

822. And wholesale prices are not a test of wages? Wages may rise though prices may fall, and *vice versa*?—I think it would be important to follow the relation of retail prices and wages to wholesale prices. You must not assume the one thing from the other, the important thing is to understand what the facts are.

823. (*Mr. Birch.*) Surely the retail prices would more affect the wages than the wholesale prices?—The relation of wages to retail prices would also be important to ascertain if you could get them.

824. But that is an important element, much more than the wholesale?—I do not know; I think that the wholesale prices are also very important to know, and there is this valuable point about them, that you can obtain them much more easily than the retail prices.

825. It is only with reference to wages. Agricultural wages are generally supposed to be the lowest limit upon which a man can live, and such men cannot buy wholesale. It is the retail price that materially affects wages?—That involves matters of great theoretical interest, no doubt, but wages certainly form the most important element in the price of raw material, because the raw material is produced by labour like other things, and the price represents wages that have been paid.

826. (*Sir T. Farrer.*) Then I think you are of opinion that our figures might be very well taken at many more places than they are? Even the wholesale prices are not the same at all places?—I think it would be very important indeed that you should have figures for a great many places, even as to wholesale prices.

827. Even within the United Kingdom?—Even within the United Kingdom. For instance, I have observed in the recent discussions about Irish rents that it has been urged on behalf of landlords in Ireland that the tenant in Ireland has got the benefit not only of the rise in the prices of agricultural produce, meat, and other articles, that would be deduced from the price in the wholesale markets, but he has got an additional benefit in this way, that the cost of conveyance from his farm to the wholesale market has been diminished and that really is an important point. The rise in prices by which the tenant farmer has gained in some distant part of the country, and the agriculturist generally has gained, may be even greater than what is shown by the rise in prices in the wholesale markets in London or other wholesale markets. This I have already observed, I think, with reference to the French prices, the different course of the prices of wheat in England and France; and I may say also that some figures which I have been looking at lately would seem to show that the price of wheat in Italy has not fallen so much as the price of wheat in London, that there are differences in almost all the principal countries of

Europe, in the course of the price of wheat. As far as the degree of the change is concerned, the fall in London seems to be at a sort of maximum compared with other places in Europe.

828. But their currency would have something to do with it. The Italian notes were at a considerable discount at one time?—Well, if the work was properly done the changes in currency ought to have been allowed for, but I have investigated the figures so recently that I can hardly speak about it.

829. (*Mr. Barbour.*) Might not the cause of the fall in wheat in London be explained by the fact that the area under wheat in England is being reduced?—I have hardly been suggesting causes in what I have said. I am merely pointing out the expediency of having prices from more places than one, because the facts may be different. No doubt if the area under wheat is being reduced in England, it is because the crop is not a profitable one.

830. Therefore there may be a certain quantity of wheat sold in England every year not at a profit. That would tend to make wheat fall rather more than in other countries?—I have no doubt there are such explanations, and other explanations which might be got at, but the point I am pressing of course is that it is important to get prices for more places than one, and that explanation if true would reinforce my argument.

831. (*Sir T. Farrer.*) And you are of opinion that there is a process of equalisation or levelling going on both in prices and in wages?—I think there is, owing to the great reduction in the cost of conveyance, and that that levelling is going on over very wide areas indeed.

832. It appears then that what we have with respect to wholesale prices, is, looking at prices alone, a mere contribution to any general answer to the question whether prices have fallen or risen and to what extent. What you have given is only a contribution to a complete answer to that question?—That is the way in which I look at it, that it is only one element out of many that ought to be got for the purpose of properly discussing the question.

833-4. And that with respect to the mere fact of the price that is paid for an article, when we come to analyse the meaning of that price there arise other considerations, do there not?—Of course, in all these inquiries that I have been making just now, I have not taken into account at all what would be the causes of the changes of prices at different times. That raises questions of exceeding difficulty; how you are to distinguish what particular causes co-operate in producing the particular result in the economic world. It is always a very difficult matter.

835. You have been dealing not with the question of causes but with the question of facts?—Simply with the question of facts.

836. The facts of prices, and the result is that we have an indication, but a very imperfect indication, that, on the whole, prices have followed a certain course?—That is so.

837. Then, as to the cause or meaning of those prices, there may be various constructions put upon them?—I suspect there would be endless discussions as to the causes, of which Mr. Tooke's History of Prices is a specimen. He devotes six volumes to the discussion of the causes of the changes in prices, and chiefly to a demonstration that they are not owing to certain causes, but may be owing to others.

838. To take the thing in its most elementary form, price is an indication of the value of an article in money, is it not?—The prices which I have been referring to are, of course, money prices which may be taken in two ways, one in the articles and the other in money. If the money price goes up, that means that the price that would have been expressed in the article would have gone down.

839. So that it is in fact an equation of two articles?—That is the way in which I always look at it.

840. Then you may alter that relation by increasing or diminishing the quantity of either the one or the other?—You may say that the relation is altered by causes affecting either the commodities or the money; that the investigation of the causes should relate to two branches of the subject, as it were. One branch of investigation would be what has happened regarding the commodities; and the other, what has happened regarding money.

841. If the cost of production of commodities is much diminished, if the facility for bringing them to market is much increased, if the quantity of human effort necessary to bring them into a state for consumption is diminished, then that would naturally diminish the money price of the article, although the money remained the same?—Unless there was a corresponding change in money.

842. The money remaining the same?—Yes.

843. On the other hand, if the cost of production, the difficulty of producing the article, remained the same, and the money differed, then the price would alter in consequence of the alteration in the money?—That is one mode of putting it, but of course it is a very theoretical mode of putting it.

844. (*Mr. Cohen.*) Would it be possible to distinguish how much of a given change could be ascribed to one set of causes, and how much to the other set?—I should not like to say how far it is possible.

845. I am not asking you to do it, I am asking you whether it would be possible to do it?—I think it would be possible to arrive at some important conclusions giving light upon the subject, though whether it would be possible to arrive at an exact definite conclusion, so definite as that question puts it, I should have very great doubts indeed.

846. (*Sir T. Farrer.*) I was going to ask you whether you think you would be able to prepare anything that would throw light upon it?—I think that I should refer you to what I have written on the subject. I can hardly say that I am prepared at present to carry the discussion any further.

847. You have spoken of a general tendency during the greater part of last century to a fall in prices. Have there not during that period, at any rate in the case of manufactured goods, been very great improvements both in production and in transit?—That is a point of very great importance, I think, with reference to these historical investigations; and although the prices that I referred to of Sir George Evelyn seemed to show a rise in the value of silver of between 400 and 500 per cent., still it was important to keep in mind that this was only with reference to the particular articles and things specified in the table, which did not include to any extent manufactured articles, and I believe that if you were to take the course of prices of manufactured articles, that that course would not have been precisely the same as that shown by the other articles. And there is one illustration which is very strong in my mind. You take such an article as sugar; at the time when Sir George Evelyn has commenced, that is about 400 or 500 years ago, the current price of sugar, as you see from Thorold Rogers' History of Prices, was about 2s. per lb. That is in the money of the present time, you may say 5s. per lb. The present price of sugar is something like 3d. per lb., so that it is only $\frac{1}{10}$ of what it was at the time when these figures of Sir George Evelyn that I have been referring to began, and of course, if you were able to include sugar and a good many other articles in the index number it might alter the inference from the index number as to the course of prices very materially indeed. I believe that that would be even more true of the modern time than it would be of any past century, because you have had so much greater a development of manufacture in the last 100 years than at any previous time.

848. Sugar is a very peculiar article, is it not, in which you can trace a variety of causes which would lead to its cheaper production?—It is an article which, from being an article of extreme luxury, has become, through the cheapening of the cost, an article

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of ordinary consumption, and the difference even in money between the present time and 400 or 500 years ago is that the price now is only about $\frac{1}{20}$ what it was.

849. And you are able in the case of sugar to trace the causes, are you not? For instance, the very much larger number of countries producing sugar, the introduction of beet sugar, very great improvements in the manufacture, great facilities of transit, and lastly legislation, which pays people for selling sugar cheap?—That has all contributed to the low price of sugar, as we happen to know from our Board of Trade special knowledge of that special subject.

850. I suppose one may go through several leading articles to see how some of those elements have contributed very largely to the cheapening of the cost of production?—I think with regard to iron that is especially the case. As far as I can make out, a very common price for iron—though it is difficult to read the prices of past times and reduce them to modern money—a very common price for finished iron about 400 or 500 years ago would have been about 30*l.* per ton, and the corresponding price now would be about 5*l.* per ton, so that that would be a very large set-off to the rise in prices which seems to be shown by Sir George Evelyn in that table to which I have referred. Of course iron now enters much more largely into the production of articles than it did in the former period.

851. And we know that there have been very great improvements in the mode by which iron is produced, which it is not necessary to enumerate?—Iron; and even more especially steel.

852. The same thing would be true of cotton to a great extent, would it not, that the manufacture is very greatly improved?—That is true of cotton undoubtedly, and also there is this point, that cotton is a comparatively new article in the manufacture of the world, that the thing hardly existed 400 or 500 years ago.

853. And it is also true, with regard to such articles as wheat, that we know how the cost of production has been diminished by bringing such very large quantities from different tracts of the world now under cultivation which were never cultivated before, and by facilities in transit?—That is quite true.

854. And so you may go through a number of articles and show reasons for the fall in price quite independent of anything relating to the precious metals?—Yes, but the point I was on just now, I think, was a little different. I was trying to explain that the tables we have been discussing, showing the rise in prices down to the present century, would have been modified if we had been able to include other articles where the price has actually fallen at the same time as others have risen.

855. That would relate to the tables that go back to the last century?—Yes.

856. That would not relate to the tables that go back since 1874–73?—It might relate to them a little, —the same principle would apply. The effect of the tables might be modified, if we could include more articles.

857. (*Mr. Birch.*) But tea at the beginning of this century was about a guinea a pound, was it not?—I have heard of 16*s.* a pound. I was not aware that it was a guinea.

858. (*Sir T. Farrer.*) I think the conclusion to which you would point is rather that while there has been a fall in prices, it is extremely difficult to say to what cause or causes, and in what proportions that fall is due to those different causes?—No doubt that is a matter of the utmost difficulty.

859. (*Mr. Barbour.*) With regard to these Indian tables, I may explain that I am not responsible for them, and I think that the figures they give of prices from markets in the interior of the country would not be accepted by anybody as minutely accurate. There are no prices current, no price lists, very often no big market. Some Government official goes and inquires from month to month what the price is. That is sent in, and the figures are published as they come in.

While one man may go to an establishment that deals wholesale, if there is such an establishment in the place, another may go to a retail establishment, and so forth. I think, however, as showing the general course of prices they are sufficiently accurate, and there are one or two questions I should like to ask you about them. As regards the prices given for cotton, castor-oil, linseed, jute, and hides in these Indian tables, are you aware that they are taken from the Bombay and Calcutta Commercial Lists?—I did not, I think, make any criticism upon these particular prices. Of course, it was evident from what I said that I was referring to the prices in the interior.

860. These prices from markets in the interior of the country, I believe, are prepared in a different way. There are no price lists?—From what I know of statistics of prices generally, I should say that to get prices from the interior of a country is naturally a very difficult matter, and that it ought always to be explained in giving them forth how they are obtained.

861. And I suppose the prices taken from the well-known price lists of Calcutta and Bombay would be more satisfactory to you than prices brought from the markets in the interior of the country?—If they were properly abstracted from the price lists.

862. If they were correctly taken from the price lists?—And you could also check them to a certain extent from the imports and exports, if they were obtained in a proper manner, dividing the values by the quantities.

863. That would depend upon the correctness of the declared values, would it not?—That is so, and I am assuming that that work is done in a proper way.

864. (*Mr. Cohen.*) When we speak of the appreciation and depreciation of gold, you measure that appreciation or depreciation, as the case may be, by the prices of commodities, do you not?—The phrases are phrases which I am very careful about using myself, but I suppose that would be one way in which you could use the words.

865. Would there be any other way?—You can speak of appreciation and depreciation as between gold and silver themselves.

866. But where there is only one standard in the country you must measure it in something?—But still you could also speak of appreciation and depreciation with reference to gold and silver themselves.

867. Supposing we were speaking now of the appreciation of gold or depreciation in this country, you could only measure that by commodities, could you not?—Commodities and services, that is to say wages. The one thing is as important as the other.

868. The result, then, of the inquiry on which we have been engaged to-day would be to establish the fact that there are really no practical means of telling whether gold has appreciated or depreciated, in your opinion?—No; it only establishes the fact, I think, that it is a difficult matter.

869. I will ask you another question. Have you given your attention particularly to the movement of prices in Europe since the demonetisation of silver by the Latin Union?—Not very specially.

870. Are you aware that since 1873, with only one exception, the prices as reflected in the index number of *The Economist* have moved *pari passu* with the fluctuations in silver?—They seem to correspond very nearly, there is no doubt about that. These wholesale prices seem to correspond with the movement of silver itself as expressed in gold.

871. (*Sir J. Lubbock.*) Did I understand you to say you rather question *The Economist* index number, because you thought undue importance had been given to cotton in the calculation?—No; I was rather pointing out that it was referred to as an imperfection by Mr. Jevons himself, and undoubtedly it seems to alter the result as compared with other figures which are used. It is a point which people must observe and form their own judgment upon as to whether cotton should enter so largely into the aggregate of the index number. It is a question for discussion and judgment. My own opinion is that it does enter too

largely, but that is not like pointing out an error in it exactly: it is a matter for discussion and judgment.

872. Because, if I remember right, the numbers allotted to cotton were three or four, I think you said, out of 22?—Four out of 22, Mr. Jevons points out.

873. That would be something less than 20 per cent. ?—That is so.

874-5. Now in the return of the Board of Trade of the per-centage of the value of each specified article of British and Irish produce, I see that—for the exports we take the year 1865—that cotton was 34 per cent. of the exports and 24 per cent. of the imports, and therefore in both cases cotton really occupied a more important position with reference to our commerce even than that which *The Economist's* figures would give it?—And what I should say would be that cotton ought to occupy even a more important place than it does in the *Economist* index number when we are dealing only with the import and export trade of the United Kingdom, but it does not follow that in a general index number that

that should be the test of the relative importance. It is a test of relative importance if you are taking your index number for the foreign trade only; but it does not follow that it is a test that ought to be followed when you have a great many articles, and putting in a good many which are not very largely subjects of foreign trade at all, so that the selection is to some extent arbitrary. At any rate the effect is different when you have four articles out of 22 cotton instead of three out of 40 as you have in another table.

876-7. So that although the weight attached to cotton is even below its real proportion when we are dealing with the export and import trade of the country, when we deal with the whole trade of the country including the internal trade, you think it is rather too much?—It may or may not be too much. If one was forming an ideal index number you would have to consider many points and consider what you should do; what you ought to consider your objective standard would indeed be very difficult to find out.

The witness withdrew.

Adjourned till Wednesday.

Fifth Day.

Wednesday, 8th December 1886.

PRESENT :

THE RIGHT HON. A. J. BALFOUR, M.P., the CHAIRMAN, presiding.

MR. D. M. BARBOUR.
MR. J. W. BIRCH.
MR. L. L. COHEN, M.P.
SIR T. H. FARRER, Bart.

MR. C. W. FREMANTLE, C.B.
MR. W. H. HOULDSWORTH, M.P.
SIR JOHN LUBBOCK, Bart., M.P.

MR. GEO. H. MURRAY, *Secretary*.

MR. AUGUSTUS SAUERBECK examined.

878. (*The Chairman*.) The Commission at this moment are engaged investigating the demand for and supply of the precious metals for the purposes of currency. That is a question which I think you have dealt with in a contribution to the Statistical Society, and it is on certain facts brought out in your pamphlet that we desire to examine you to-day?—Yes.

879. There is a table here which, I think, you have taken from a well-known book by Dr. Soetbeer, giving the average annual production of the precious metals from the year 1851 to the year 1884. You have translated the weights given by Dr. Soetbeer into pounds sterling for the various decades through that period?—Yes.

880. Have you examined the evidence on which Dr. Soetbeer has framed that table?—No, I have not.

881. You simply take that table as given by an eminent statistician, and one that, therefore, in your opinion, can be relied on within certain limits of error?—Yes. I may just say that in the last edition he made some very slight alterations. Dr. Soetbeer alters the figures as he obtains fuller and more reliable statistics.

882. But he adheres in the main to the figures as they stand in your pamphlet?—My figures are from last year's issue, and the difference in the new edition is very slight. It would not affect general results.

883. You do not think it in the least probable that there is an error of 20 per cent. in any of the figures that you have given?—I should not think so. They are indeed higher than any estimates published by other sources, and for my purpose I found it best to take the highest estimates, so as to be on the safe side.

884. But though these figures cannot be relied on as absolutely accurate, the limit of error is not, in your opinion, very great, as far as you can judge?—I should think not.

885. Are you not in error on page 5 in your quotation from Dr. Soetbeer as to the amount of the precious metals used in the arts?—I do not think so. He puts down the consumption of gold at 110,000 kilos, and the net consumption, after deducting old metal, at 90,000. That is still the estimate in the new edition.

886. But I thought Dr. Soetbeer's estimate was for the whole world, and you add to his estimate of 12,250,000*l.* the requirements of Spain, Portugal, Austria, Russia, Turkey, Asia, Africa, Australia, Central and South America?—The estimates of consumption are for Europe and the United States. What I add for Spain, Portugal, Austria, and Russia is for coinages and banking reserves, and for Asia, Australia, South America, &c., the total requirements.

887. You made no independent investigations into the use of the precious metals for the purposes of arts and manufactures?—No, I did not; but in an indirect manner I came to the conclusion that if anything the figures are too high.

888. There is one table which you quote from Dr. Soetbeer as to the total amount of metallic money in circulation, which would supply us with very important information if it could be relied upon. It is that given on page 6?—That was published in last year's edition, and is not repeated this year altogether, except the amount of gold. Dr. Soetbeer gives the figures with all reserve. Statements of the total stock of money in the world have been published

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Mr.
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by various authorities who have to some extent checked each other, so that we may now have more reliable data. But on the whole estimates as to the amount of gold and silver in a country are, as you are well aware, very vague.

889. They are very vague indeed, and I presume nobody would say that these are to be relied upon as absolutely trustworthy?—No, I should say not; but an estimate as near as possible.

890. But could you give any conjecture, or does Dr. Soetbeer give us any ground for conjecture, as to the limit of error within which we may accept these figures?—No, he does not.

891. Now I want to ask you with regard to the statements on page 8 of your pamphlet as to banking and other modes of economising the precious metals for the purpose of currency. That is, of course, a vital question when we are dealing with the demand made on the stock of the precious metals. Is this a question into which you have made independent investigation?—I made general investigations into it, and, of course, all my remarks refer to the time during the last 14 or 15 years, since the adoption of the German monetary reform.

892. Could you explain the statement you made that telegraphic transfers are the reverse of an economy of the precious metals?—My statement was that the use of telegraphic and other transfers and of cheques in the place of bills of exchange is probably the reverse of economising, as by means of endorsement a bill can effect a great many payments and requires money only at due date, while for cheques money may be claimed, and bankers have to keep sufficient cash reserves for this purpose. Therefore if such transactions increase it may have an effect upon the current accounts of bankers and hence on their cash reserves.

893. So that the reason that you think that a telegraphic transfer is not an economy as compared with a bill of exchange is that the telegraphic transfer requires a reserve in the bank, and a bill of exchange requires no such reserve?—Transfers may require a reserve.

894. Is that generally accepted by banking authorities?—I cannot say whether this opinion is generally accepted by banking authorities.

895. That is not a subject into which you have made any investigations?—Permit me to explain more fully. Many political economists express the opinion that transactions carried on by bills of exchange and cheques may be almost indefinitely expanded. This is true of bills of exchange as of book credits so long as there is sufficient circulating capital, but in the case of cheques and transfers at banks it is—so far as my judgment goes—only partially true. Where there is a perfect system of clearing many amounts balance each other without requiring money, but the moment they enter into current accounts or that amounts are drawn from current accounts, they affect the banking reserves. In London, therefore, not all transfers would affect the banking reserves, but if the influence is ever so small it must be greater than in the case of payments by bills. But my remarks refer to all commercial countries, and if on the Continent, in places where there is no clearing house, transfers are made, funds must be at the bank, covered to some extent by cash.

896. When you say that it is shown that bills of exchange have lost some of their efficiency by the fact that they have fewer endorsements upon them, and therefore represent fewer transactions, how is that, in your opinion, to be accounted for?—It may be by that custom of making cash payments, by the development of many large banks, and the discounting of bills. Of course, formerly, more people, particularly on the Continent, used to make their payments by bills of exchange. Now they go to the bank, discount a bill of exchange and pay perhaps by cheque or transfer.

897. So that again, in your opinion, the fact that bills do not pass from hand to hand in the manner

they used to do requires the banks to hold a greater reserve than was formerly the case?—It may add to the growth of current accounts and consequently to the amount of cash held.

898. Are you of opinion that as matter of fact the banks do hold larger reserves than they used to do?—I am not fully acquainted with that. Of course, it is very difficult to go into all the details of the liabilities of the banks, and how much they have to keep, but on the whole they must be prepared for cheques and transfers, that they may be taken up in money, while if a payment is made by bill of exchange, of course no real payment takes place until the bill falls due. In this country it would appear that, according to the "*Economist's*" statistics, the amount of current accounts and deposits has advanced since 1879 from about 510 million £ to about 570 million £ in 1885. The English banks, excluding the Bank of England, hold about 21 or 22 per cent. covered by cash and money at call. It is assumed that the actual cash held is very small, but the actual amount does not matter so long as the proportion remains the same. Should there be no increase in the total cash reserves, then we have to set against it the fall in prices and the smaller requirements of capital and money for larger quantities.

899. Have you made any independent investigations into the extension of the Clearing House and other systems of economising the precious metals in countries other than England?—Clearing Houses have been established at Paris and Vienna, and also in some places in Germany, but I do not think that the clearings as yet are very important, so far as I have seen the figures.

900. Then your general conclusion would be that whereas in the United Kingdom we are already banked to the utmost, and no further economy of the precious metals is to be anticipated, there is still room in other countries for adopting similar expedients?—Yes, with regard to other countries, I should fully say that; but even in the United Kingdom, probably, we have not arrived at the limit. I cannot see any great advance lately, but still it may be further developed by and by.

901. Then you are of opinion that the United Kingdom, as a matter of fact, has not advanced in this direction during the last 30 years, but that, nevertheless, an advance is still possible?—During the last 14 or 15 years. All my remarks refer to that period.

902. When you call attention, as I think you do, in one part of your pamphlet, to the fact that we may possibly have to look for an increased demand on the stock of the precious metals, through the resumption of specie payment by Russia and by Austria, we may perhaps set against that the probability that on the Continent, and perhaps in America also, an economy of the precious metals may ensue through the extension of banking expedients?—Yes; it may ensue, but you know very well people will not change their customs of paying simply on account of a greater demand for gold, but only when they find that it suits them best for their own purpose.

903. But I suppose you would say that as far as a forecast is possible, it is quite as likely that the Continent will increase its banking operations, as that Russia would adopt a specie payment?—It is quite possible, because a great movement is going on in Germany, anyhow; but the development in order to economise a very large amount of money, particularly by the extension of banking among smaller merchants, shopkeepers, and private individuals, as is the case in this country, would be a comparatively slow one, while Austria and perhaps also Russia may cause a new demand for gold within a not very remote time. They might require 100 million £, and the economising of money would have to be increased to such an extent as to set free a similar amount in Continental countries.

904. Then we come to the tables of prices which you have given, or rather the summary of your in-

vestigations as to prices, supplemented by these tables, which you have handed in?—The tables handed in are partly extracted from my paper in the "*Statistical Society's Journal*," partly they represent additional investigations. (See Appendix IV.)

905. I do not know that I have any special inquiries to make with regard to the items dealt with, but I should like to ask you, with regard to your system of index numbers, whether the conclusion you have arrived at is not that, though index numbers which do not take account of the quantities of commodities dealt with are theoretically inaccurate, practically the results so obtained do not differ materially from those which you obtain if you make some allowance for the quantities?—In a system of index numbers there may occur errors, if you do not take any notice of quantities, and I have checked my figures to some extent by calculating also according to quantities. In fact, I have calculated the figures on three different systems. On page 15 I give the nominal values of the quantities in 1849, in 1873, and in 1885, at the average prices of 1867–77, which formed my standard, and then I calculated these at the index numbers in each year, and found that the change in prices was, if anything, more important than actually shown by my ordinary index numbers, but that it did not differ materially.

906. So that whatever methods you adopt you arrive substantially at the same result?—For the 45 commodities which I have taken.

907. (*Sir T. Farrer*.) Might I ask you how you get your quantities?—You will observe on pages 36 and 38 that I have calculated the quantities of production and imports of all the various commodities. I have estimated the real values and the nominal values at uniform prices.

908. I wanted only to ask so as to get at the quantities. You have the imports, but how did you get at the quantities produced within the country?—Well, as near as possible, partly according to official statements.

909. Are there any official statements?—In the case of wheat we have now official statements as regards the production, and also for potatoes, barley, and oats, and for former years there were estimates by Sir James Caird, the "*Times*," and other authorities. Then with regard to minerals we have official statements of the production [in this country. In a few cases, for instance, hides, tallow, and timber, I had to leave out the production as I could not get any reliable estimates.

910. (*The Chairman*.) Your tables are based upon the consideration of the English wholesale price of these 45 commodities?—Yes.

911. Do your conclusions, with regard to the fall of prices, apply to retail as well as to wholesale prices?—Perhaps in a less degree, because there are a good many articles which principally enter into the retail trade, like meat and butter, that have not fallen so much as the general average, but where there is a great decline, as in the case of corn and sugar, I think the consumer gets the full advantage. For instance, in the case of bread, best bread costs now about 6d. the 4 lb. loaf, which used to be 8d. and 9d., and I understand up to 11d., and inferior bread can be got at 4½d. and 5d. in London.

912. Does that fall in the retail price of bread correspond in amount to the fall in the price of wheat?—The fall in retail prices might not fully correspond according to per-centage. If the raw article has fallen 40 per cent., and forms about one-half of the value of the manufactured goods, and wages have not fallen, then the fall for the manufactured article would only be one-half in per-centage, but in many commodities there is great competition and curtailment of profit, and prices have probably also been very much depressed on account of that.

913. Then, according to your view, wages have not fallen to the same extent as commodities; but the wholesale producer has had to curtail his profits in order to pay wages, and the retail dealer, on the other

hand, has not curtailed his profits, but has paid wages out of the public. That would be the conclusion to which your last answer points, at all events?—No; what I intended to convey was that if wholesale prices have, for instance, fallen 40 per cent., and wages have not fallen, then the decline would only be 20 per cent. for the manufactured goods; but, on the other hand, there was great competition in retail as well as wholesale business, and prices have been perhaps further reduced, but there are no statistical data for any retail prices. It is possible that, to some extent, the retail sellers made larger profits for some time, but I do not think that will be maintained for very long if it has been going on.

914. Competition between the retail sellers will ultimately give the whole advantage derived from the fall of wholesale prices to the public?—It should do so.

915. (*Sir T. Farrer*.) The prices that you have given us here are wholesale prices?—All of them.

916. (*The Chairman*.) You have, I think, constructed a curve of wholesale prices for certain years?—Yes.

917. Do you think that materials exist for making a corresponding curve indicating the variations of retail prices?—No, I should say that there are no data at all to go by.

918. Then do you think it would be possible to construct a similar curve for the variation in the price of labour?—I very much doubt it, but I have not myself gone into the question of labour. I think it is very difficult to get full information with regard to wages.

919. I think you state somewhere in the course of your pamphlet that labour has not fallen to an extent corresponding with the general fall in prices?—That is my impression. It has fallen to some extent, but not by far to the same extent.

920. Have you made any investigations on the subject?—I have not myself made any investigations, but I have seen some publications, and the reports of the last Commission appear to confirm my views.

921. The Commission on the Depression of Trade?—Yes.

922. You have studied the facts there brought forward?—Yes.

923. But the facts that you can obtain from that source are not sufficient to enable you to construct a curve of the kind of which I speak?—It would not be sufficient, I should think. Of course, you would have to get the details of the price of labour all over the country, or at least in the principal towns of the country.

924. Would that be a matter of very great difficulty?—I should say so, but I believe Mr. Giffen is now trying to get that information,—labour statistics. I understand that Mr. Giffen has sent a circular to about 6,000 people. Of course it will be very difficult to digest their replies. Still, he may get some information from which he may perhaps be able to construct such a curve, but for any private individual it would be altogether impossible, I should say.

925. (*Mr. Houldsworth*.) You have a number of subsidiary curves for food, corn, meat, butter, sugar, coffee, and tea. Would it not be possible to make a number of small ones in certain trades for labour as, of course, price lists exist for certain trades, in fact, nearly all trades. They perhaps do not cover the whole ground, but, as far as they went, curves could be constructed?—I myself have not been able, in fact I have not tried sufficiently to get full information on it.

926. (*Sir T. Farrer*.) I think several statisticians have given great attention to this question of the price of labour, that is to say, the rate of wages. Mr. Giffen himself has written a paper upon the state of the labouring classes, and I think the conclusion that he comes to is that during the last 50 years the money wages of labour in this country have risen by about 100 per cent. Are you aware of that?—I have seen Mr. Giffen's paper.

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927. That was in 1884; and at the moment when he wrote his last essay, in 1886, the price of labour was falling again, but not to the same extent as it had risen. That, I think, was Mr. Giffen's conclusion. Then Mr. Leone Levi, I believe, comes to the conclusion that labour had risen in the same way during a long period of years, but that during the last four or five years it had fallen 15 per cent. ?—Well, I dare say that would be the case in many trades.

928. I think the general results arrived at by Mr. Atkinson, of America, and Mr. Leroy-Beaulieu, of France, are that the wages of labour have on the whole been rising very considerably up to the period within which they wrote, which is within the last three years. Mr. Leroy-Beaulieu's book was written three years ago, Mr. Atkinson's two years ago, I think. All agree that there has been during the last two or three years something of a fall ?—Yes.

929. (*The Chairman.*) A fall of 15 per cent. would not be very widely different from the fall that you calculated in commodities ?—Well, it would after all, because such a fall of 15 per cent. would probably be calculated on the highest point, but if you were to take the average of 1867–77 the fall would perhaps be less, because I believe before 1870 wages were still lower than they are now.

930. Are you aware of the terms of the circular which Mr. Giffen has issued to these 6,000 individuals ?—I read it at the time.

931. Does it ask for particulars as to the relation which wages now bear to what they did 20 years ago ?—I believe he is making inquiries as far back as possible, to get a range if possible. That, I believe, was the purpose of his inquiry.

932. I have not asked you any questions with regard to the demand for precious metals for the purpose of currency, for I believe you have contented yourself with taking Mr. Soetbeer's estimates, on which you think reliance may be placed ?—For the demand for coinage for the last 14 years I made some special tables on page 4.

933. Do those tables differ from those which Mr. Soetbeer himself has compiled ?—I do not know exactly whether Mr. Soetbeer has made similar estimates. I took the total coinage in Germany, and the amount of bars in the bank, I deducted a rather high estimate of what may have been melted down and exported, and then I arrived at the net requirements for Germany. And in the United States I took the gold currency now and in 1873 as estimated by officials, and from that I arrived at the net requirements; there are further two small estimates for Italy, Holland, and Scandinavia, making the whole requirements 178,000,000*l.* You will remember that Mr. Goschen at the time put them at 200,000,000*l.*

934. These investigations represent original research of yours into the coinage question; they are not merely a digest of Mr. Soetbeer's figures ?—These figures are not taken from Mr. Soetbeer at all. I took the official figures of the coinage in Germany and of the estimates in the United States.

935. Now I should like to ask you with regard to the estimates you have made of the increase of production, would you not expect that the amount of production would at all events bear some relation to the demand for the precious metals, that if there is a great increase in the amount of commodities produced and in the number of commercial transactions there will be a greater strain put upon the metallic resources of the world, provided that no change occurs in banking facilities during the same period ?—That is my opinion.

936. And it is from that point of view that you have investigated the increase in the production of commodities ?—Quite so.

937. Are you of opinion that the conclusions you have arrived at may on the whole be relied upon ?—I think they are fairly reliable, as near as can possibly be made out, but, as I mentioned, the figure of 28 per cent. as the increase of production since 1873 is, if anything, rather too high than too low.

938. The increase in the United Kingdom I think you put at 17 per cent., do you not ?—Yes, that is from a different set of statistics, from page 36.

939. Then I suppose you would say the total increase in the production of commodities lies somewhere between 17 and 28 per cent. ?—I should say so, yes, but nearer to the latter figure.

940. Then we may adopt that conclusion without any serious risk of error ?—Just so.

941. So that your general conclusion may be put in this way, that while commodities have increased somewhere between 17 and 28 per cent. the supply of gold during the same period has only just been sufficient to meet new currency requirements, without supplying any of that natural increase which would be required, or at any rate, which, according to one theory, would be required, to maintain prices at their old level ?—Yes, that is my conclusion. Of course, you have to take the amount of money in that sense, not of gold alone.

942. I ought to have said gold currency ?—The monetary circulation—gold, silver, and paper-money—in those countries having now practically the gold standard.

943. While, therefore, gold is appreciated through that double set of causes—the diminished production, and the increased demand owing to both the increase of commodities and the alterations of currency—silver is depreciated through the double cause of an increased supply and a restricted demand for currency purposes ?—Yes.

944. And that the increase of production in the countries using silver has not been sufficient to overtake that increase in supply ?—You mean the increased demand in silver-using countries was not sufficient ?

945. I suppose you would admit that there is an increase of commodities in silver-using countries as well as in gold-using countries ?—Yes, there is certainly an increase in the exports.

946. You have collected no facts with regard to the increased production in silver-using countries ?—No. So far as it is exported it is included in my figures, but what is consumed at home would not be included. My figures give the supply in Europe and North America.

947. Still, on the whole, I suppose you would be inclined to admit that there was an increase of production in silver-using countries as well as gold-using countries ?—I should say so, yes.

948. And, therefore, if there had been no increased supply of silver, and no restriction of the supply of silver for coinage purposes in Europe, silver prices would have fallen in the same way that gold prices have fallen ?—In that case silver prices would have moved in the same proportion as gold prices, but the general fall, if any, would have been much smaller, as, notwithstanding the decreased production of gold, Europe and North America would have received a considerable addition to their monetary circulation, while the exchange of silver would have kept on its former level. It is influenced by the great production of silver and by the diminished demand.

949. So that the increased production and diminished demand have more than made up for the increased production of commodities in silver-using countries ?—Just so.

950. So that you are of opinion that causes have been at work which, quite irrespective of silver, have appreciated gold, and quite irrespective of gold have depreciated silver ?—If you exclude the changes in the currency. Of course, if silver were still a standard coin in Europe—for instance, if Germany had not altered the coinage, and France was still coining silver—then the level of prices might still be the same as before, as the large production of silver would have been quite sufficient to make good the diminished supply of gold.

951. (*Mr. Cohen.*) I do not think the witness understands that silver is not depreciated as compared with commodities, only as compared with gold ?—It is depreciated as compared with gold.

952. (*The Chairman.*) I thought I understood you to say it had depreciated with regard to commodities owing, no doubt, to change of currency in Germany and Italy?—I did not fully understand your question. It has fallen about 20 per cent. and commodities 28 per cent., which is very near.

953. Have you made any investigations as to the relations between silver and commodities in silver-using countries?—No, I have not made inquiries as to that, but I should say that prices have fallen to some extent, because I find that as compared with 1867–77, the 11 years on which I base my calculations, 10 articles exported from India have fallen 35 per cent., while silver has only fallen 20 per cent., at least up to 1885. It was lower this year. Therefore, the conclusion would be that there must be some decline also in the silver-using countries.

954. (*Mr. Barbour.*) Would not the reduction of freight between England and India come in there?—Yes, to some extent the difference may be due to a reduction of charges.

955. I think you said that you were of opinion that Dr. Soetbeer's estimate of the precious metals consumed in the arts was too high?—I think so. But I made no independent investigations, and cannot criticise Dr. Soetbeer's researches. I came to this conclusion in an indirect manner. You will see from page 5 that I found a deficit of 94,000,000*l.* which cannot be proved to exist in any country.

956. And it is on that that you base your opinion?—It is on that that I base my opinion that it could not have been so large, because all the estimates for requirements are very moderate, while I have taken the largest estimates of production.

957. On page 5 also you say the figures of import and export of gold in France are unreliable. Have you any special grounds for saying so?—I found out that there is a great increase in the imports over exports which could not possibly have taken place; and I believe Mr. Soetbeer also proved that the figures must be wrong.

958. Then you said that there had been an increase of production of commodities in the countries using the silver standard?—I conclude that, because we receive more goods from them, like wheat.

959. Have you any grounds for saying that the increase of production in silver-using countries is as great as the increase of production in gold countries?—I should say that it is very nearly so, because we receive now a great many goods from the silver countries. There is a large increase in many articles exported from India.

960. But is not the consumption of the silver countries very great—of India, for instance—in proportion to the quantity exported; therefore an increase in the quantity exported is not a proof that there is a corresponding increase in the quantity consumed in the country?—It is not a proof, but still the imports have also increased, and, of course, there would be the general conclusion that the country has developed just like any other countries in general production.

961. But you could not say with any certainty?—I have no statistics.

962. That the increase of production in the country was in proportion to the increase of imports and exports?—No, I could not say that with any certainty.

963. (*Mr. Birch.*) I see you state that you agree with Mr. Giffen that there had been no extension of banking facilities or of banks during the last 20 years?—I mention in my paper that it does not appear that any important change has taken place in the cheque and clearing systems in the United Kingdom, and that it has been stated by Mr. Giffen that this country was fully "banked" some 30 years ago.

964. From statements which I have collected it appears that in the last 20 years bank offices have increased from 2,417 to 3,886. That is rather a large increase?—Well, of course the trade of the country has increased, and the population.

965. But I think you will allow that the rise from 2,417 to 3,886 is a very large extension of banking?—It is a very large one, but I am speaking specially of the use of cheques and clearing, the economising of money.

966. That would naturally result, would it not? If you had a very large extension of banks, you would have a very large extension of cheques also?—I admit an extension, but not a very important one, particularly as there is a decrease since 1873 in the London clearing.

967. Then you say that telegraphic transfer takes the place of bills of exchange, and therefore that greater reserves are necessary. I think you will agree with me that the majority of business houses keep a large amount of their money at call, and particularly those houses that are liable to have great demands on them in the shape of telegraphic transfers?—Well, just so; they would have more money available like that.

968. But is it not the case that where one draws from a house another one pays in?—Just so. Of course there are a great many payments which balance each other; but still, generally speaking, if everything is paid by cash, the natural conclusion I thought would be that it would affect the banking reserves.

969. But you see what I mean with regard to keeping the money at call, which is now so largely resorted to?—Yes, but the more money is lent out at call, the easier the money market; while if large amounts are withdrawn it will make the market tighter; both influences will act on the monetary reserves. My remarks do not only apply to telegraphic transfers in London, but to the substitution of transfers and cheques generally for bills of exchange, all over the world, also in places where there is no clearing house.

970. You say that the telegraphic transfers have taken the place of bills of exchange. They have, to a large extent; but have you in your estimates at all calculated the amount of bills of exchange which are in existence in England?—The stamp duty on bills of exchange and bank notes in the United Kingdom from 1871–75 amounted to 1,030,000*l.* on the average, and in 1885–86 to 800,000*l.* only. The circulation of bills of exchange in Germany at the end of the year on the average of 1872–75 was estimated at 185 million *£* against 165 million *£* in 1885–86. There is a decrease notwithstanding an enormous development of trade in Germany.

971. Then have you taken into consideration at all the economy that is produced by the cotton clearing in Liverpool which formerly used to take up 150,000*l.* a week?—No, I have not taken that into consideration. Of course there may be various modes by which an economising has taken place, but it appears also probable that there is an actual decrease in the amount of gold in this country.

972. Then with regard to the index numbers of prices, you think that they are much to be relied on in this way, that wheat would be influenced by one reason, cotton by another, steel by another, and each article would have influences bearing upon it quite distinct the one from the other. You could not well mix them up together?—The reason that regulates the price of each article is to be found in the article itself, except when there is a general development or a general depression, when perhaps several articles together, or all of them, may fall or rise.

973. But no doubt you have often observed how one article falls and the other rises, but from entirely distinct reasons?—I consider all the reasons for a rise or fall in a single article within short periods as distinct, and belonging to that article itself on the whole.

974. But you cannot do that in your index numbers?—I take the average of them. I consider one article may have risen and another fallen, and then I take the average. No doubt, if the average of all the index numbers goes down then the proportion of fall must be greater than that of rise.

975. You say at page 14:—"It may be argued 'that index numbers do not in the aggregate give

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"a correct illustration of the actual course of prices." That refers specially to quantities?—That has been argued, and I think it is to some extent true. They are not fully reliable, but perhaps they are better if you calculate from a higher point downwards than if you calculate from a lower point upwards, as the influence of extraordinary movements on the general average will be less if the price falls from 100 to 25 than if it rises from 100 to 400; for instance, cotton from 24*d.* to 6*d.* or from 6*d.* to 24*d.* The change of price would be exactly the same, but the influence on the total index numbers would be very different.

976. You say on page 4:—"The monetary reforms in Germany, Holland, and Scandinavia, and the resumption of specie payment in Italy and the United States, caused a considerable extra demand for gold," are you aware from whence this gold was drawn, because, I suppose, if it was taken from hoards it would not particularly matter?—The question of hoards exists, but still, nobody has ever proved that there were any large hoards.

977. Not in France?—Well, at least it could not be proved in figures; nobody could estimate it.

978. Has it not been estimated?—It may have been estimated, but I do not know how you will arrive at the figures.

979. I think that when the indemnity was paid to Germany, was there not some information obtained with regard to the amounts that came out of hoards in France?—I do not think that it would be possible to ascertain what amount of money is hoarded and is afterwards put in circulation again.

980. (*Mr. Cohen.*) Have you any information about the hoarding of silver in India?—No, I have no information.

981. And have you any information as to the locking up of gold in this country, through light gold being stored in the different banks?—No, I cannot give any information.

982. Have you any information upon the cost of the production of silver in America?—I cannot answer this question.

983. There are questions connected with prices in your book at page 39. You recapitulate the causes of the fall in prices as being due to the alteration of currencies, the demonetisation of silver, and the insufficient supply of gold; you could not state which is the most prominent of these causes, and to what extent each is accountable for the fall, could you?—I mention two principal causes of the fall of prices:—(1.) Reduction of cost of production and conveyance, and in consequence great increase of production; (2.) alterations in currencies, demonetisation of silver, and insufficient supply of gold. The last three cannot be separated. We have first the alterations in currencies and demonetisation of silver in Germany and Scandinavia, and as a consequence the stoppage of free silver coinage in the Latin Union, Holland, Austria, &c. Then the resumption of specie payment in the United States and Italy. Had silver not been demonetised, the free coinage would not have been stopped, and the decreased supply of gold would not have mattered. On the other hand, had the production of gold increased to, say, 35 million £, the demonetisation of silver would not have had much effect on prices in gold countries. On the whole, I consider the influence of the precious metals is principally on average prices, and would therefore call attention to the dotted line on the diagram at the end of my paper, giving always the average of 10 years. Of course we cannot compare the present prices, those of very depressed years, with a very good year, or even with a whole period, and say that the whole fall is due to currency influences. There are all kinds of influences, great increase in production, diminished demand, general depression, &c.

984. (*The Chairman.*) Your view is that temporary fluctuations in prices are due to temporary alterations of supply and demand, but that any permanent alteration of prices is probably due to some alteration in the relative supply and demand of the precious

metals for currency purposes?—Yes, I express these views on page 11.

985. Would largely be due to them?—Largely.

986. (*Mr. Cohen.*) Have you seen a table which has been compiled for the last 13 years, showing that since the demonetisation of silver the fall or rise in the price of 22 of the chief commodities has moved down and up according to the movements of the silver market, with the exception of only one year?—I have not seen these tables, but silver has been falling continuously.

987. I beg your pardon, it has not fallen continuously. What I want to bring out is, that the oscillations of silver down and up have moved with the same oscillations of the prices of these 22 commodities, with the exception only of one year out of the 13?—It has frequently been the case, particularly in 1876, when there was a general fall of prices of commodities in the middle of the year, together with a fall in the price of silver, and they moved up together afterwards. If I said that silver has been falling continuously, I meant that the average annual prices showed on the whole a downward course.

988. You state at page 40 that if silver had not been demonetised, and if the production of gold had not decreased, the fall in prices would have been very much smaller. According to that you give the chief factor in the case of prices to the demonetisation of silver. Is that your opinion?—To a very great extent. I said perhaps it had a greater influence on prices.

989. The demonetisation of silver?—The demonetisation of silver and the decreased production of gold. Of course if the gold production had very much increased, then we might have higher prices now.

990. The great factor in low prices you take to be the combined cause of the falling off of the production of gold and the demonetisation of silver?—Just so. The supply of money has not increased at a similar ratio to the supply of commodities.

991. (*Sir T. Farrer.*) The information you have given us with respect to prices is confined entirely to the wholesale prices of certain articles in London?—Just so.

992. That is founded upon the system of index numbers?—Yes.

993. In that system of index numbers you admit that there are certain defects, although you think that on the average they produce a tolerably accurate result. One of these imperfections is that the relative importance is not given to different articles?—Just so.

994. You have attempted to check that by taking particular years, and you found that it produced much the same result?—Yes, for these 45 articles.

995. But still, whatever it is, it is a defect in the system?—Just so.

996. Then, in the first place, they are not accurate if you take a long period of years. Then the other question. You are obliged for a purpose of this kind to group a number of articles under one heading. In the course of a series of years, those articles may entirely change their character, may they not?—They may, but so may other sets of commodities.

997. Quite so, therefore you are not quite certain that at one period in a table of this sort, you are dealing with the same thing that you are at another. That is an inherent defect?—Yes. I must take it for granted that the importance of each article has remained the same.

998. That the character of each article has remained the same?—And the character.

999. But as matter of fact it may not?—It may not.

1000. In this table, at page 12, you group various articles. Take for instance sugar, coffee, and tea, and you get a certain result; but the causes that may have influenced the lowering of price of those different articles may be extremely different, may they not?—They may.

1001. Therefore you cannot deduce any general conclusions as to the cause of the reduction of price of

a whole group that you put together in that way, without analysing and seeing what are the different articles of which it is composed?—That would be necessary if you refer to special articles or even groups.

1002. We are not now concerned with causes, but I should like to ask you one general question concerning the effect of grouping and averages. You have said in your paper that there are special causes of the fall of prices of some articles. If we take two articles A and B, and suppose that A falls in price 50 per cent. from a special cause, whilst B remains stationary, it will be an arithmetical fact that the average fall of the two is 25 per cent., but it will be a fact of little or no significance. Now, if it could be shown that out of the articles contained in your list, or in one of your groups, the majority have largely fallen in price from special causes, would not the value of your average or index numbers for any general purpose be to that extent diminished?—There might occur such a defect in a group as you say. If one large article had fallen and a small one risen, both from special reasons, the mean drawn without regard to quantities would be valueless. Take for example the large article sugar and the small article cocoa. Unimportant articles, particularly if they have followed a different course from the general average should, therefore, be excluded, and the groups be made to contain as many numbers as possible. I have not included very small articles, and have given to very important articles two index numbers. One group contains four numbers only, all the others seven, eight, and 11 numbers. As the movements of the various articles within the groups have not varied greatly during the last 15 years, the average may give a fair illustration, but as mentioned in my paper the defect may exist if a comparison is made with very remote times, and going further back my groups may show this defect. In the total of all the index numbers the probability will be that fluctuations from special causes in one direction will be balanced by movements in the opposite direction. Index numbers checked by quantities give a fairly reliable result, and there is no better system; but it is impossible to be quite exact, as even according to quantities the calculation may be made by different methods, all perhaps open to criticism.

1003. And when you come to consider the causes of prices, before one could get at a very accurate result, it would be necessary to take each article separately and see what are the various causes of depreciation in each?—If you wish to find out the causes for each article, yes.

1004. Well those are all observations to be made on any system of prices framed on this system of index numbers?—Just so.

1005. And apply to the wholesale prices in London which you have given?—Yes.

1006. Have you endeavoured to get wholesale prices elsewhere than in London?—I have the publications in Germany by Mr. Soetbeer, which are not really wholesale market prices; but nearly all deduced from the import prices.

1007. And from prices at Hamburg for different things?—Yes, at Hamburg.

1008. And some of them British prices?—Yes, 14 British export prices, 8 Hamburg market, and 92 import prices.

1009. Have you compared your line of curve with the various lines which he gives in this table of his?—Yes, I have reduced his figures to my level of 1867–77, and I find that up to about 1873 his prices follow almost exactly my curves, but slightly under mine, after that he remained above my level; and the reason for this I found to be that he included a very large number of unimportant articles.

1010. You have seen this diagram of his?—Yes, I have seen that.

1011. You see that in this diagram he has got a variety of lines relating to different articles, and he has put also this red line, which is taken from “*The Economist*,” a line very much corresponding to

yours, except during the American war, when the index number in “*The Economist*” is much higher?—Yes, at the time of the American war it went very much higher.

1012. It does not correspond with yours there because you have allowed for that. Generally speaking, I think “*The Economist*” numbers and your numbers agree very fairly, do they not?—They cannot fully agree because, first of all, “*The Economist*” numbers are for a certain day, the 1st of January, always, while my numbers give the average prices of the whole year. With regard to the American war I have not made an allowance, but in my table cotton is only counted as two index numbers in 43, while in “*The Economist*” it is counted as four in 22 numbers, and hence the influence of the high prices is much greater in the latter table.

1013. Still the point I want to get at is that this line which gives “*The Economist*” number, on the whole, is not very different from yours—at least not during the last 20 years. But you will observe if you take Dr. Soetbeer’s lines of prices of different things, taken from different sources, that they differ very widely indeed from either “*The Economist*” line or yours?—So do mine if you take the prices of different kinds of goods. You observe that in meat and butter for instance if you look at these tables.

1014. I am quite aware of that, that they differ, but he takes these for different periods, the price of productions of agriculture, of cattle, of mining, and 100 articles, including British export articles, and those all, I think, differ considerably from your line?—If you take separate lines of Mr. Soetbeer you would have to compare them with separate lines of mine.

1015. You will see that the continuous blue line is a curve which applies to all articles, and that Dr. Soetbeer lays much stress on the tables from which this curve is drawn as probably more universal and more accurate than the tables of “*The Economist*.” You will also see that this blue line of Dr. Soetbeer’s, though coinciding in general character with “*The Economist*” curve, is less abrupt and descends much less at the latest period. Have you any observations to make on this?—Yes, I said before that Mr. Soetbeer’s figures showed a less important fall, and that the reason for this is principally the addition of a very large number of small articles. Besides, official import prices I consider to be less reliable than market prices, at any rate they follow the movements more slowly. I reduced the prices in Mr. Soetbeer’s tables to my level, comparing 1885 with the average of 1867–77, and I found that for the same articles as treated in my tables there is a fall of 24 per cent. as against my 28 per cent. But for the other articles the average decline is only 15½ per cent. Now I should like to draw your attention to the fact that Mr. Soetbeer’s index numbers are calculated on the basis of the four years 1847–50, a very low period, and, as I mentioned previously, I consider the system of calculating from low prices upwards to be less accurate than from high prices downwards. Many of the small articles had reached a much higher level already some 15 or 20 years ago, and it thus occurs that small articles like cocoa, pepper, horns, ivory, &c. receive now twice or three times the importance as large articles like wheat, cotton, wool, iron, &c. I have prepared additional statistics, not yet published, as handed in, in which I give still 61 prices of other raw produce and 51 prices of manufactured and partly manufactured articles, nearly all deduced from the Board of Trade returns, which may not yet show the extreme fall. You will observe that taking my 45 descriptions and the additional commodities and calculating all according to their importance, I find an average decline for all the 157 articles of 26 per cent. as against 28 per cent. according to the 45 index numbers of the principal articles. If Mr. Soetbeer were to adopt a similar course I have no doubt he would obtain similar results with regard to German prices.

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1016. I do not know whether you have read any of the reports which have been made lately about trade abroad, reports made by Mr. Strachey to the Foreign Office, and made to the late Commission?—I have read some of them.

1017. From those it would appear that owing to the protective duties in Germany the manufacturers of Germany are in the habit of selling much dearer in Germany than they are selling in England?—So I understand.

1018. And that has been a complaint by many of our own people, the fair traders made it a great subject of complaint?—Yes, I know that that is the case.

1019. (*The Chairman.*) That they sell at a higher price in Germany than they do in England?—Yes, they form a ring, for instance, for the sale of steel rails.

1020. (*Sir T. Farrer.*) They make England what the Americans call the “dumping” ground for cheap German goods, the effect of which would be to make the price list in Germany considerably higher than in England?—Yes, for protected articles, and all articles imported including duty.

1021. I think you will find in those reports that in the case of sugar, for instance, which has been an article peculiarly protected by its bounty, the price at Hamburg is 12 marks for the cwt., if sold to England, and 21s. if sold in Germany. That would make a very material difference in so important an article as sugar, would it not?—Yes, it would.

1022. Well then, if we go to America we find the same thing happening. For instance, here is a passage from a book of authority in America, “The history of the United States Tariff.” “It is a well known fact that the mining companies of Lake Superior had controlled until within a year or two almost the entire production of copper in the United States. They maintained for many years a combination for fixing the price of copper. Their price has been steadily higher than the price of copper abroad, and when they have found it impossible to dispose of all their product at home at the combination price large quantities have been sent abroad and sold there at lower prices in order to relieve the home market.” There again, you would have the prices in America of an important article like copper higher than the prices in England?—Quite so, where they are influenced.

1023. Even though the article was exported from America. Then in the appendix to that book, at page 106, Mr. Taussig gives the price of copper in England as from one-third to one-seventh less than in America during a series of years from 1875 to 1884; therefore a price list of that in America would be very different from a price list in England?—Yes, but of course the difference would principally be where there is an alteration in the duties. If the duty had always remained the same, perhaps for a great number of articles you may find the same curves.

1024. I am not speaking now of the curves, I am speaking of the price of the article. When you take the price from 1875 to 1884, as you have here, you find that on the whole it is from one-third to one-seventh higher in America than it is in England. That would alter very materially one of these curves so far as copper is concerned?—Just so.

1025. Take again steel rails. The difference there between the price in England and the price in America has been as much as 100 per cent., therefore if you take a price list in America it would be a very different thing from a price list in England?—You would of course have to take the prices in the free market.

1026. But we are now speaking of the relation of money prices to articles, surely we must take the money prices as they exist in America and the money prices as they exist in England, must we not. These are the prices at which all steel rails and all copper are sold in America?—Just so.

1027. (*Mr. Barbour.*) Is there a duty on the import of copper and steel rails into America?—I have no doubt there is.

1028. (*Sir T. Farrer.*) What I wanted to get at was that, taking three such articles as sugar, copper, and steel, the wholesale prices in those foreign markets do not correspond with the wholesale prices in our own, and therefore if we are to come to any attempt to get at the relation between certain articles throughout the world and gold and silver, we must have a much larger induction than can be obtained from the prices of wholesale articles in London.

1029. (*The Chairman.*) That difference of price between America on the one hand and a free market like England on the other, though it undoubtedly exists, does not affect the curve of prices from year to year, or does not materially affect the curve of prices from year to year?—It may not if the duties remain the same.

1030. (*Sir T. Farrer.*) It certainly *may not* affect the curve, but it *may* and probably does in this way. Is it not the case, that protection at first will make the price of the article very much higher in the protected country?—Yes.

1031. But it frequently happens, does it not, as we know it has happened with sugar, that that induced over-production in that country?—Just so.

1032. And possibly in the end the price in the protected country may fall so as to be very nearly on a par with the unprotected country?—Yes, that may be the case.

1033. So that it will make the fluctuations even greater than in the unprotected country. Then, I would just ask you this: Has not the object of our recent legislation from Sir Robert Peel's time been to remove as many of the barriers as possible from production and importation, and consequently to make this country as cheap a country as possible for all articles that we want?—I think that has been done, but that has been done a long time ago. If you go over the prices of the last 20 or 30 years they are no longer affected by duties.

1034. The prices in this country are no longer affected by duties, but the prices in other countries are affected by duties?—Yes, they may be.

1035. And by bounties?—Yes.

1036. And by that indirect form of bounty given by protection which enables the manufacturers to form a ring and sell dear at home and cheap abroad?—Yes.

1037. I think you said that you could not get any statistics of retail prices?—No, I could not.

1038. Well, I suppose, for the purpose of comparing the quantity of gold with the demand for it, as shown by prices, we ought to take retail prices quite as much as wholesale prices, ought we not?—They would, of course, be very useful to know, but I do not think it would be possible to get complete statistics.

1039. I quite agree with you, but retail prices are as important for that particular purpose as wholesale prices, are they not?—Oh, they are.

1040. Then, I think you said that you have not got any statistics whatever of what we may call the prices of service. Taking now the different forms in which we may get the prices of service. First of all the public service. Has there been any diminution of salaries, or of wages paid in the public service?—I cannot give any information on that, but I may refer to a table in Germany where there has still been an increase in the last 14 years in the salaries of the railway servants.

1041. Has there been any diminution?—No, there has been an increase. There was a considerable rise in earlier years from 1850 to 1872, and a slight rise from 1872 to 1886, according to Mr. Soetbeer, but it is just possible that the salaries in 1872 were far too low in comparison with the cost of living.

1042. That is the public service in Germany, is it not?—Yes, in Prussia.

1043. Well, then, in professional remuneration has there been any fall?—I have not gone into that. All

my own researches have been confined to the wholesale articles.

1044. And with regard to the wages of labour we may state, may we not, that the general impression of statisticians is that the wages of labour rose very considerably from about the year 1850 to the year 1875, and that they have probably slightly fallen since?—That is the impression.

1045. (*Mr. Birch.*) In Germany, I think you said, they had risen?—I understood the last question as referring to wages generally in this country. The figures with regard to Germany which I just mentioned refer to the salaries of railway servants, not exactly to the wages of general labourers.

1046. (*Sir T. Farrer.*) In Germany, I think, Mr. Soetbeer's figures, so far as they go, go to show that wages have remained much upon a level and have not fallen at all?—I think he does not state a quotable fall.

1047. Is not this the conclusion of Dr. Soetbeer's examination of this question, that the cost of living in Germany is from 60 to 80 per cent. higher than it was before the gold discoveries?—This would be partly due to higher wages and higher retail prices, but partly also to the improved standard of life. There is no doubt that, owing to the increase of wealth, people, nominally in the same position, live now everywhere a great deal better than some 30 years ago.

1048. (*Mr. Birch.*) The excessive duty in Germany makes living very expensive?—You could hardly speak of excessive duties in Germany. Living there is still cheaper than in England, but the difference was greater formerly. Germany was not so rich a country formerly as it is now, and, of course, everything must have risen to a great extent.

1049. (*Sir T. Farrer.*) What Dr. Soetbeer says is as follows:—"Though many other observations might be made on the general views to be derived from the above tables, we withhold them for want of space. The principal object of our observations has been to point out to what great and numerous changes wholesale prices are subject; how many different factors exercise a decisive influence on their formation; and how infinitely difficult it must be to arrive at any moderately certain opinion about the real level of general wholesale prices at any one given time, compared with their levels in other periods of time. If, notwithstanding these difficulties, we are to attempt to draw some summary conclusion from the foregoing means of information concerning the changes in the purchasing power of gold, we should be disposed to say, that, compared with the time immediately preceding the recent gold discoveries, the cost of living, proportioned to their position in life, of the great majority of the German population has during the most recent years been on an average from 60 to 80 per cent. higher than it was 30 years ago. In comparison with the period 1871-75 there is, on the whole, no farther rise to be proved. The general level of prices in the wholesale trade in the last five years appears in comparison with the time before 1851 to be about 18 per cent. higher; but in comparison with the period 1871-75 to have fallen about 12 per cent. Any such assumptions must however be accepted with all caution as only approximate estimates."

1050. (*Mr. Birch.*) Is that the price with the duty?—It refers to the Hamburg wholesale prices without the duty, on the average of the last five years.

1051. Prices of services, if one may call it, are quite as important when we wish to compare what gold has to do with the supply of gold as the prices of goods, are they not?—I believe the inquiry should mainly extend to the prices of wholesale articles—agricultural and mining—to which on the whole the same laws apply as to the production of gold and silver; and I think, if I may touch a theoretical part, that wages and many other expenses depend very much upon capital, and that so long as the capital of the

country increases at the same ratio as population perhaps you will not see a very strong fall in wages.

1052. Still we are now concerned with the actual effect of gold prices paid for particular things, and for our purpose, that is to say, the relation of gold to different things, the relation of gold to services is quite as important as the relation of gold to commodities; do you not quite agree, or do you not wish to express an opinion? For instance, the price of goods went up, the wages went also up, and if we had to get perhaps the same prices for commodities that we had 10 years ago wages would probably have risen?—It is quite possible that wages would have risen perhaps for the same reason that they have not materially fallen now; the increase of commodities has been larger than the increase of population, causing a greater demand for labour until the last few years, when in many branches the demand fell off. Had prices been maintained it would no doubt have been more satisfactory to all producing classes, to the vast majority of the people. The more we deviate from the wholesale prices, in the direction of retail prices, wages, professional services, and ultimately of fancy prices for art treasures, the greater the influence of custom and of the amount of capital. We cannot simply reduce everything to the supply of the precious metals, and speaking of prices generally we cannot, therefore, lay down a mathematical rule. Certain prices may remain nominally the same and yet the quality we obtain may be different. Wages for ordinary labour and salaries may not fall, but the advance for greater skill and experience may be less. Actual prices of some articles or of certain services may remain unaltered, but the number of those willing to continue paying these prices, and hence of those obtaining them, may change, and the total sum paid may therefore be altered. It would be impossible to arrange statistical comparisons for everything that may come under the term of "prices."

1053. I did not quite understand what you meant with respect to the increase of commodities. Would you kindly explain what the argument is?—You mean generally. The purpose of my inquiry into the increase of commodities was to find out whether it is very much larger than it used to be in former periods.

1054. Whether there was a much larger quantity of commodities?—Whether the increase of commodities since 1873 was very much larger than the per-centage of former years, and I found that from 1849 to 1860 we had an increase in this country of 30 per cent., and from 1860 to 1873 of 37 per cent.

1055. I will take your facts. I am not inquiring how you got at those facts, but assuming that there is 30 per cent. or any other figure of increase, what deduction do you draw from it?—I was going to say, I wanted to prove that the increase proportionately was not larger than in former periods. While in former periods the quantity of money, gold and silver, was constantly increased it was possible to maintain a certain price level for about 25 years, and now we have no such increase in the monetary circulation while we have an increase of production at the same rate as formerly, and by that I want to prove that if we had kept up the same supply of money we might possibly have maintained the former price level on the average, or that the fall would have been very much smaller.

1056. You say that in former times the supply of gold has kept pace with the increase of commodities and then prices kept up, but now the supply of gold has not kept pace with the increase of commodities and therefore prices have fallen; that is the argument, is it not?—That is my argument.

1057. (*Mr. Fremantle.*) You said just now, I think, that the demonetisation of silver had caused the fall in prices?—The insufficient increase in the quantity of money, whether it is gold or silver, was caused by the diminution of gold and the demonetisation of silver. Germany had a silver currency, and France used to coin silver also, and now both and other silver

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and bi-metallic countries have given up the coinage of silver.

1058. (*Mr. Houldsworth.*) On that point, do you consider that a new demand for gold, such as occurred in Germany when silver was demonetised, affects the position of gold as a standard of value?—Yes, it would. Like any demand for an article, it would increase its value.

1059. Even if it came from hoards or reserves or ornaments?—No, not then.

1060. Then where does it come from if it does not come from hoards or reserves or ornaments when there is a new demand?—Well, in this case it came from the new production, but if that new production had not been sufficient it would have been taken out of the currency of other countries. I do not consider that a source.

1061. But if it came from hoards or reserves or ornaments, it would not affect the standard of value?—You do not mean the bank reserves?

1062. Yes, I mean any reserve of gold from any place except new production?—Well if it came from regular hoards, or from manufactured articles, of course it would be like a new supply; but if it was taken out of banks, where it was held as a reserve against liabilities, it would affect the standard of value.

1063. To put it another way, supposing this new demand had sprung up when there was no additional production at all, and had been supplied, would you have called that a demand that altered the position of gold as a standard of value?—Yes, I should call it so; because if gold were not produced then it would have to be supplied out of the currencies of other countries.

1064. And that would have altered the position of gold all over the world as a standard of value?—Decidedly, unless the gold taken from other countries was replaced by silver or paper money circulating at the same value as gold, or that a system was invented economising money to the same extent as the amounts of gold exported.

1065. (*The Chairman.*) It would have appreciated gold in fact?—It would have appreciated gold.

1066. (*Mr. Houldsworth.*) And yet the gold was in existence before?—It was in existence, but the countries whence it was taken would have to transact the same business with less currency. As it was, the whole new supply has only served to meet the extra demand of various countries. Perhaps the quantity of gold in other countries has not diminished, or has only slightly diminished.

1067. You said, I think, that the increase of the supply of gold has not been as great as the increase in the supply of commodities, and therefore prices have fallen?—Just so.

1068. If the supply of gold had been as great as that of commodities of course prices would have remained?—Prices might have remained practically the same or the production of commodities might have still further increased, if this would have been possible.

1069. (*Sir J. Lubbock.*) In reply to Mr. Birch, just now, with reference to banking facilities, you referred to the fall in the transactions of the London Clearing House, but you did not, did you, intend to imply that that was owing to any change in the banking facilities given in London?—No, I only wanted to imply that any great advance in the use of cheques cannot be proved from the Clearing House returns. Of course prices have fallen so much that now the amounts are smaller, but on the other hand, the quantities of commodities are much larger.

1070. But do you not think that that fall in the amounts is entirely due to the fall in prices, and the diminution in the Stock Exchange transactions, and has no reference whatever to the amount of banking facilities?—I lay no stress on the actual decrease of the London Clearing House; there were certainly more speculation and larger Stock Exchange transactions in 1873, while the fall of prices is to some extent balanced by the larger quantities. I do not speak of a reduction of banking facilities, but I cannot find a very important advance, as banking was certainly well

developed in this country 15 years ago. The present stock of gold bullion and gold and silver coin in Europe and North America is estimated at about 1,000 million £, and including paper money there has been practically no increase in the monetary circulation for the last 15 years. Now, if the increase had gone on at the rate of 15 million £ a year, as it is assumed to have been between 1850 and 1870, we should have had an addition of 225 million £, or in per-centage very much the same as the increase of commodities. What I wanted to imply is that I cannot see an advance in banking facilities in Europe and North America to such an extent as to make up for even a moderate proportion of these 225 million £.

1071. Are you conversant with the operation of country clearing?—I am not so well acquainted with that.

1072. I daresay you are generally aware that the introduction of country clearing has led to great facilities in the collection of country cheques?—Yes, I know, but I believe there are no figures published.

1073. And though it has not affected the question of the amount referred to by you just now, still in this country it has had some appreciable effect?—Yes, it may have had some effect.

1074. But speaking generally, so far as foreign countries are concerned, you are of opinion that there has been no great advance in banking facilities?—There is no great increase, although they think that in Germany the transfer system which the German Imperial Bank has introduced is the cause of a great economising of money. But I do not consider it is to such an extent, because in consequence of the introduction of that system the deposits of the bank or the current accounts of the customers have increased, and the bank always holds about 50 or 60 per cent. of its liabilities in cash. The convenience may be very great, but as the deposits, and, consequently, the cash reserves, have increased, the actual economising of money cannot be very important. Besides to a great extent from one town to another the transfers simply take the place of bills of exchange.

1075. (*The Chairman.*) So that the money instead of passing from hand to hand goes into the reserves of the bank, and is as much required as it was before?—Yes.

1076. (*Sir J. Lubbock.*) Sir Thomas Farrer asked you some questions with reference to the high prices in Germany which are obtained by combinations among manufacturers. I did not quite understand from your answer whether that had been in operation for any considerable time?—I am not fully acquainted with the fact, but I am told that it had been done in the case of steel rails in Germany and of copper in the United States.

1077. Supposing that it refers to any particular article in which the combination had been in operation for some time, then although it would affect the actual price it would not affect the curve, would it?—Well, it might affect it. It might depress prices here, but of course there are all kinds of influences, and as to the index numbers we must take it for granted that these influences level each other.

1078. Yes, but it might be that although the general level would be higher the fluctuations would still be the same in the two countries?—They might differ to some extent, if they are influenced by duties, but where they are free of duties, as at Hamburg, the fall is very much as it is here.

1079. Then the system being altogether an artificial system you would hardly think it possible to lay down any general rule as to the effect it would have on general prices?—It cannot be done; we must take international prices free of any interference of the State.

1080. And you would consider that the London prices being independent of such artificial operations would on the whole be the best guide to follow?—I should think so.

1081. (*Sir T. Farrer.*) Suppose that the quantity of these articles sold in the United States is as great as the quantity sold in England, would not the effect

of those transactions upon the relations to gold be exactly as great as the effect of the transactions in England, and would not the relation of gold to the commodity vary although it was an artificial reason that raised the price?—I should say that in the long run the curve would remain very much the same. If an alteration takes place it might have an influence.

1082. But we are dealing with the actual prices, are we not, in these wholesale prices?—Just so.

1083. We are dealing with the relation of commodities to gold, therefore you must take the actual prices, must you not, without going into causes?—But they are influenced by duties. The per-centage of fall or rise may be different. Of course, not all prices rule alike in different countries, but those of international commodities, easily transportable, cannot, allowing for difference of freight and duties, vary much at any one time, though in many respects the gradual course of prices may show some difference; if, for instance, a country is, in the case of a certain article, changing from an exporting to an importing country. The influence of this and of State interference is clearly seen by a comparison of the prices of wheat in France and Germany with those in England during the last 100 years. Articles difficult to transport, wages, &c., may show some difference, according to the stage of development of various countries. Other things being equal, a country having for some reason or other higher prices would require more money for its transactions. With regard to America, I may mention as a fact that wholesale prices have fallen 29 per cent. as compared with 1870–72.

1084. (*Sir J. Lubbock.*) It was this I wanted to arrive at, that if you have countries where you have duties which may change, rings which may be broken up one day and reconstituted the next, the prices there do not give you so good a basis of calculation as the prices in some free market like London, where you are not influenced by duties or combinations?—Just so.

1085. Sir Thomas Farrer also asked you some questions with reference to retail prices. Now, supposing they were obtainable, have you any reason to suppose that they would affect the conclusions to which you have arrived in your memoir?—I think the retail prices have, on the average, fallen less than the wholesale prices. All my arguments refer to the 45 wholesale commodities. If other commodities have fallen less, the result has to be modified to some extent.

1086. But you have no reason to suppose that if you could have arrived at tables of retail commodities that would have affected the conclusions to which you have come?—I do not think it would have affected them to a large extent, because there is no doubt that retail commodities have fallen also.

1087. (*Sir T. Farrer.*) Is it not the case that at Magdeburg, the great sugar market, the price of sugar

to the German consumer is exactly the price to the English exporter plus the bounty? That is in one of the consular reports?—That would be the wholesale price? I should say that is correct.

1088. (*Mr. Barbour.*) Did you say, in reply to Sir T. Farrer, that you thought that for the purpose of an inquiry such as the present one retail prices were as important as wholesale prices?—Well, of course, retail prices would also have to be considered if you come to the purchasing power of gold.

1089. Retail prices are much more a matter of custom than wholesale prices, are they not?—They are a matter of custom in many ways, and, as I said before, in many ways such prices are influenced by the amount of capital.

1090. My question was, they are much more determined by custom, at any rate, for some time, than wholesale prices are. Wholesale prices are determined in the open market, and retail prices, to a certain extent and for a limited time, are determined by custom?—Oh, yes.

1091. Therefore, wholesale prices would show the working of the general law much more readily than retail prices?—Yes, they would.

1092. (*Mr. Birch.*) They would show it sooner, but retail prices, in the long run, would show it better. I did not, however, understand what special reasons there are for retail prices not being affected as much as wholesale. They are not, of course, first; they take time; they neither rise nor fall for a long time because it must be known all over the country before it takes place. But it takes place both ways, because, supposing a man in the country has laid in sugar very cheap, he constantly continues to sell his sugar cheaper, even when the price goes up; and exactly in the inverse ratio, if he has bought his sugar very dear, he does not begin to reduce his price so soon. It goes on more slowly. But the retail prices are of very great importance as affecting wages, what a man can live upon?—Yes.

1093. (*Sir T. Farrer.*) This is rather a theoretical question, but as regards that part of the precious metals which is used in circulation, and not in the reserves, retail prices and wages must have a much greater effect upon it than wholesale prices, must they not, because more of it is used in those transactions?—Yes, more of the coin is used, certainly. It is very difficult to arrive at the exact mode how it is acting, but we must suppose in the long run, if the transactions increase and the mode of payment remains the same, and there is no increase in the supply of money, that prices must fall. Of course it can only be seen in a general way.

1094. (*The Chairman.*) The tables you have put in are not merely a reproduction of those you have given in your pamphlet, but they represent the results of a more elaborate investigation carried out upon the same lines?—Yes, but only for the average of the period of 11 years 1867 to 1877, and for 1885.

The witness withdrew.

Mr. D. M. BARBOUR examined.

1095. (*The Chairman.*) We desire, as we are investigating the question of the demand for precious metals, to ask you for such information as you can give us on the question of hoarding in India. You have had a very long experience of that country, have you not?—I have had 20 years' experience.

1096. Can you tell us what special opportunities you had in India for investigating financial questions connected with that country?—For about eight years I was employed in the interior of the country, partly as a magistrate and partly in the collection of the revenue, and so I saw a good deal of the habits of the people closely. After that, for about 12 years, I was generally employed in the financial department of the Government of India. For the first eight years of my service I was in close contact with the people every day.

1097. Have you given much attention to this special question of hoarding by the natives?—I have given a good deal of attention to it.

1098. Then you do concur with the general opinion expressed by most observers that there is always, and has been, for centuries, a very large amount of hoarding among the natives of India?—It is beyond question that there is a large amount of hoarding both of gold and silver.

1099. What form does that hoarding take?—Gold and silver are hoarded in the form of bullion or coin, and frequently the metal is made into ornaments, and partly used for the purposes of ornament and partly kept as a hoard; it is impossible to discriminate between the use of gold and silver as ornaments and their use simply for the purposes of hoarding.

1100. Practically, I suppose when a native desires

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to save money he is comparatively indifferent whether it is in the form of a hoard in the earth in some hidden place, or whether it is in the form of jewels?—I think he prefers it as a rule in the form of ornaments for his family, because it is a hoard, and it is also a source of gratification to them to possess these ornaments.

1101. Is that because it is more easily converted when it is in the form of jewellery, or simply because it pleases him?—I think simply because it pleases him that his family should have ornaments.

1102. Can you give us any estimate of the amount of such hoarding?—I do not think it is possible for anybody to give exact figures, but we know that 130,000,000*l.* of gold have been imported, net, by sea since 1835–86.

1103. By net imports of gold, you mean imported and not exported?—Imported and not exported, and there has no doubt been a certain amount of import and export by land, but I think that may be neglected.

1104. It is comparatively trifling?—It is trifling as compared with the imports and exports by sea. There was no doubt a large amount of gold in India before 1835; how much I do not know.

1105. As none of this is used for coin in India, the whole of it must either be lost or used in manufactures or hoarded; is that not so?—Speaking generally, that is the case; but there is a portion of it in the form of coin, and perhaps, to some extent, and in a certain sense, it may be said to circulate.

1106. (*Mr. Houldsworth.*) You are referring to such pieces of gold as we saw here. Mr. Pixley showed us a small bar?—I refer to gold in the form of coin rather than to bars.

1107. (*The Chairman.*) But that does form a kind of currency to whatever extent it is used, I understand?—To whatever extent it was used it would be a form of currency; but I do not think gold is used as currency to any great extent.

1108. What you speak of is used to a larger extent?—I do not think gold coin is much used either. I may explain that there is a large trade in gold in India. A large quantity of gold is imported every year and is distributed throughout the country. The dealers in gold receive gold from Calcutta and Bombay and sell it in small quantities to people who want it, generally goldsmiths, and, of course, a banker, or a man dealing in gold, if he has a transaction with anybody else, will be ready to take gold in payment. He knows the market value of gold, and is able to make a profit out of the transaction, but, in the ordinary sense of the word, there is no circulation of gold in India.

1109. But would a merchant treat gold in a different manner to any other merchandise in common demand; would he not take gold in payment of a debt?—A merchant, and especially a banker, would no doubt be more ready to take gold than ordinary merchandise in payment of a debt, because it is easily handled, and does not deteriorate by keeping, and because the market ratio is known day by day and fixed very closely.

1110. Still, practically, we may ignore the amount of gold which is used as currency?—I think so; but India is a very big country, and nobody can speak for the whole of it; so far as my information goes, you may ignore the circulation of gold as currency.

1111. You cannot even give a conjecture as to the proportion of this 130,000,000*l.* which is now in that form of hoard, but it must be nearly the whole amount?—I should say nearly the whole amount.

1112. And that in addition to whatever was hoarded during previous centuries?—Yes.

1113. Could you give us any estimate of the amount of silver hoarded in India?—From my personal experience and observation I should be inclined to say that the amount of silver hoarded, excluding current coin, was greater than the amount of gold; but I made some inquiries, on the results of which I do not place much reliance, which go rather to show that the amount of gold hoarded is larger than the amount of

silver, if current silver coin be excluded from the silver hoarded.

1114. Why should you exclude the current coin?—Well, because I have found it impossible to say as regards current coin what portion of it was hoarded, and what portion of it was intended to be put into circulation in ordinary course.

1115. But I suppose a considerable amount of the hoarded silver would be in the form of coin?—A very large amount certainly.

1116. So that, according to your own observation, the amount of silver hoarded must be very much in excess of the gold hoarded, because the amount of gold hoarded is equal to the amount of silver, and we have to add to that the amount of silver hoarded in the form of coin?—I should say the amount of silver hoarded in all forms was decidedly greater than the amount of gold.

1117. Then the total amount of hoard since 1835 of the two metals together can hardly be less than 300,000,000*l.*?—I do not like to speak to exact figures in such a matter, but I should say the amount hoarded approaches 300,000,000*l.*

1118. (*Mr. Houldsworth.*) What is the exact amount that you say is hoarded of silver not in the form of coin?—Nearly equal to that of gold. Of course I speak from the best information that I could obtain.

1119. (*The Chairman.*) You do not profess to speak from accurate statistical data, but from the best information you could obtain?—That is so.

1120. Then if we are to accept Dr. Soetbeer's rough estimate of the total amount of coinage in circulation in the world, the hoarding in India alone would very nearly amount to one-third of that. If I am not mistaken Dr. Soetbeer puts the total amount of coin in circulation at 1,000,000,000*l.*, and you put the total amount of hoarding in India roughly at 300,000,000*l.*?—I should say that the hoarding since 1835 approaches 300,000,000*l.*

1121. In other words it almost equals one-third of the total amount in circulation?—Yes.

1122. Of course hoarding may mean two rather different things. It may mean money put away, as people say, in a stocking, which will certainly be drawn out by the bribe of a high rate of interest or some other inducement, or it may mean hoarding which practically nothing likely to occur will ever throw upon the markets of the world?—Of course you may define hoarding in various ways.

1123. In what sense do you use the word hoarding when you tell us that it amounts to about 300,000,000*l.* in India?—I use it in the sense that the gold and silver are withdrawn from circulation without any intention, unless under very special circumstances, of returning them to circulation again.

1124. And, practically, nothing but a case of necessity, like famine or war, would induce those who are hoarding the money to turn it into coin again?—Nothing but some special circumstance; war would probably have the effect of increasing hoarding. A change in the habits of the people, if it should happen in the course of time, would bring gold and silver forth from the hoards.

1125. But no mere inducement of profit, no fall in the price of commodities or increase of the normal rate of interest, would have any effect in diminishing the amount of hoarding?—Not within any limit of the rise of the rate of interest that you can foresee, that you can treat as practical. I have little doubt that a very large increase of interest would draw forth something, but the increase of interest would be so great that practically you need not consider that portion of the question.

1126. (*Mr. Houldsworth.*) Famine would draw it?—Famine is the chief cause.

1127. Famine would draw it all—I mean if the necessity arose?—You can hardly conceive famine throughout the whole country.

1128. Well, I mean wherever the famine was that it would draw out up to the amount of the necessities. It

is in a form that they could convert into commodities if they were in the position to absolutely require it?—At a certain sacrifice they could.

1129. And I suppose they would do it?—They have done it.

1130. (*Sir J. Lubbock.*) Is there any large amount which is actually lost, which previous owners have hidden away, or do you consider that the great bulk of it could be brought forth again if it was necessary?—I do not think that much of it has been lost in that sense—hidden and could not be found again. A portion has, no doubt, but I think that a considerable amount of gold is used in manufacture in India, and is practically lost for ever. I could not give you figures, but I have had information to that effect.

1131. (*Mr. Houldsworth.*) In what form is it lost; does it go into articles that never would be converted?—Well, I was informed that in Delhi there was a consumption of gold in connexion with “pawn.” It is a custom at ceremonies among the natives of India to give you what is called “pawn,” which is the signal for you to leave after an interview, and there is some gold used for ornament in connexion with this. I was informed by a gentleman that 100*l.* a day in gold was used in Delhi alone in manufacture connected with “pawn,” which was lost for ever.

1132. Would not the recipient of it take it and keep it?—It is so trifling that he would not do so.

1133. Might I ask you if you think there is any absorption in the temples, or in worship, or in some form that, at any rate, would not be so easily drawn out, even in the case of famine?—I cannot speak on that point from my own experience, but I have heard that, in Southern India especially, there are considerable stores of gold and silver connected with the temples.

1134. Which are considered sacred, I suppose?—I fancy they would only come forth under great pressure.

1135. (*The Chairman.*) In illustration of the definition you just gave of hoarding, is it not the fact that the high prices of cotton caused by the American war extracted a very small portion of these hoards, while a case of exceptional necessity like famine extracted a considerable portion of them?—The high price of cotton tended the other way; it led to a large addition to the hoards.

1136. Can you give us any facts or illustrations of the procedure of the natives in regard to hoarding?—A short time ago I had an estimate prepared of the amount of silver that went to Simla, and that went to Simla because the Government had large payments there to make to its officers, Simla being the summer head-quarters, and partly for payment on account of European troops stationed in the hills. The figures of the amount of silver that went there from 1861 to 1886 are perfectly accurate. They are the official returns of the amount of silver sent there, and they come to 6 krores 64 lacs, or, using the ordinary notation, 6,640,000*l.* (*See Appendix V.*)

1137. Then how much of that money reappeared in circulation?—There is no definite flow of silver from Simla; there are no remittances of silver to any considerable extent that you could put your finger on, made from Simla, and from the hills, and the only money that leaves the hills to go back to the plains is money taken down in small quantities by small traders, or taken, perhaps, by domestic servants.

1138. What proportion of the total amount sent to Simla do you estimate reappears in this way?—That is the weak point in the estimate, but I thought, and the gentleman who made the estimate thought, that one-third would be a very liberal allowance.

1139. So that in 25 years two-thirds of 6,640,000*l.* worth of silver have been absorbed by the native population living in Simla?—I should not say absorbed by the population living at Simla, but living at Simla and in the hills. A good deal of it goes a considerable way into the hills.

1140. Have you any ground for thinking that the

inhabitants of that district are more given to habits of hoarding than the people in other parts of India?—I think the people in the hills are rather more given to hoarding than the people in the plains, and I think the people in the neighbourhood of Simla have had special opportunities for hoarding in recent years; of the money which has remained in the hills quite an inconsiderable proportion is in circulation.

1141. You say that hoarding is less practised in the plains than in the hills. Is that owing to the fact that the people in the plains are more civilised, more advanced as a community?—That may be the case; it may be from that reason.

1142. Then do you anticipate that any change is going on in the habits of the people of India which will greatly diminish this habit of hoarding?—I do not think any change is going on which will greatly modify the habits of the people in any time to which we can at present look forward, but it is a fact that, since the institution of our system of Post Office savings banks, a considerable amount of money has been coming into the savings banks, and it is a fact that capital owned by natives of India has been pretty largely invested in cotton mills in the Bombay Presidency. But I think the habits of the great bulk of the people are the same as before.

1143. If this question is considered from the point of view of the relative prices of gold and silver, I imagine that if the natives did cease to hoard, and threw their accumulations upon the market, the result would not be to alter the prices of the two metals, since the amount of hoarding of the two is about equal?—It is very difficult to say what the effect would be, because if that money was brought forward on account of a change in the habits of the people, it would probably be invested in industrial enterprises of various sorts, and it would bring about a sort of revolution in commerce.

1144. I will put my question in another way. The demand made by the population of India upon the metallic supplies of the world does not affect the relative prices of gold and silver, because it is about equal of the two metals?—That may be the case.

1145. Can you give us any facts which tend to show that hoarding on a very important scale goes on at the courts of the native princes?—Yes; it came to notice recently, on the death of the Maharajah of Burdwan, that there was a large hoard. How much gold and silver is hoarded I cannot say, and probably no member of the family could say. I have got a letter here which contains the whole of the information available on the subject. In recent years 230,000*l.* of silver was withdrawn from the hoard of the Maharajah, but that was not the whole amount. The silver coins withdrawn must have been coined before 1835, because they were Sikka rupees, of which none have been coined since 1835. (*See Appendix V.*)

1146. What is a Sikka rupee?—It is a rupee which was formerly current, and it was of a higher value than the rupee of the present day. As the rupees withdrawn were Sikka rupees it may be inferred that they were hoarded a good many years ago.

1147. That confirms the conclusion to which you came on other grounds that an immense amount of the hoarding in India is anterior to the year 1835–36, at which your statistics of the import of the precious metals began?—No doubt there was hoarding before 1835. I have also got a report made by an officer of the Post Office in 1886, which shows that a native prince is at present hoarding gold at the rate of 40,000*l.* or 50,000*l.* a year, and on the death of two native princes recently it was believed that they had left 4,000,000*l.* each. The best evidence I could get went to show that they had left 4,000,000*l.* each, but the evidence is not very good. They certainly left large hoards. I cannot say how much was in gold and how much in silver; but I may say, as an illustration of the tendency to hoard, that one of those princes took a loan from the Government of India in 1877 of 500,000*l.*, and at that time he must have been in possession of a large hoard himself. But it is very

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often a point of honour with the family not to break into the hoard, and they prefer to borrow rather than to touch the hoard.

1148. (*Mr. Fremantle.*) It is of the nature of settled property?—Well, it is treated like a family picture, I think, not to be sold if possible. The whole of the loan taken by the prince to whom I have referred is not repaid yet; but last year, when he had to make a payment to the Government of India for a purpose in which he was interested, and he was asked when he could make the payment,—a payment of 150,000*l.*,—he said “at any moment.” That is, he had no difficulty in paying 150,000*l.* at a moment’s notice.

1149. (*The Chairman.*) You tell us that in times of famine hoards are invaded?—That is certainly the case.

1150. Have you any estimate of the amount which was extracted from these hoards in any given district during a period of famine?—It is quite impossible to say. All that we know is that certain amounts were brought to the Bombay Mint for coinage, a certain amount in the form of ornaments, but that must be very much less than the amount that was brought out of the hoards, because the man who drew silver from his hoard would ordinarily pledge it in the first instance with the native banker or money-lender, and the native banker might either sell that silver again, if he obtained final possession of it, or he might send it to the Mint. (*See Appendix V.*)

1151. And that excludes gold altogether?—The return for the Bombay Mint excludes gold; but we know that in the years of the great famine in Madras and Bombay, a large amount of gold was sent from India to England, and I think Sir H. Hay said he received a quantity of gold from India which was evidently composed of ornaments melted down.

1152. (*Sir T. Farrer.*) And this does not include hoards in the form of rupees?—Certainly not.

1153. (*Sir J. Lubbock.*) They would then be coins of a certain age?—Do you mean those that were brought to the Bombay Mint? They might be coins of some age or they might not. Many of the native states have the right of coinage to the present day. Their coins are not legal tenders, as a rule, in British India, but they might not be very old coins.

1154. (*Mr. Birch.*) To what do you attribute this system of hoarding, because generally the stable government we are supposed to have in India just now would bring them out. Can you give me any idea?—Well, I ascribe it to the same cause as Sir C. Trevelyan, who says it arises from habits induced by ages of mis-government.

1155. Then with good government it is to be hoped the hoards will come out. You said just now, I think, that you cannot raise loans in India; that it is very difficult indeed except at a high rate of interest; but you see the French Government got hold of a good many hoards by offering loans at a tolerably cheap rate, not a high rate of interest, and in very small amounts. Has that ever been tried in India?—That has been tried in India in recent years. It was tried in 1882, but was an entire failure.

1156. Then it is difficult to know how to get at them. With regard to the gold in the native states, it is not a legal tender, but it circulates, does it not?—I should say it does not freely circulate, but no doubt a native banker, or a man dealing in gold, or dealing in gold and silver ornaments, would take gold at a certain price.

1157. “An Indian” says:—“A portion of gold and silver imported into India is no doubt exported by land routes to Afghanistan, Persia, Nepaul, &c. But the import of gold into India is mainly caused by the large body of the Anglo-Indians who are temporarily residing in India and by the steady stream of Anglo-Indians coming to and leaving India. Being naturally apprehensive of a further fall and uncertainty of silver, they try to collect as much gold as possible and take it with them when they leave India for England. When they come to this

“country they come with hands quite empty, but they leave India after making due provision for the remainder of their life. What is more probable than that they collect a part of their savings in gold while they reside in India for utilising at home?” That, of course, is very largely exaggerated?—I do not think there is any foundation for it at all. An Anglo-Indian does not accumulate gold in India. I never knew anybody who did.

1158. (*Mr. Fremantle.*) Nor does he take gold with him?—Nor does he take gold with him. If he has saved any money he buys a bill, or employs any of the ordinary means of remittance.

1159. (*Mr. Birch.*) Do the exchange banks in India hold a large quantity of gold in deposit?—No; so far as my information goes it is not the case.

1160. Because, to a certain extent, that would be utilised?—I am not aware of their holding gold on deposit. It is possible that a wealthy native merchant might take a loan from a bank, pledging gold or gold ornaments.

1161. Could you give us any idea as to whether, with respect to labour, the value of silver has decreased in India?—I do not think I could give you any information except of the most general nature; it is, perhaps, not worth while taking my evidence on this point, but I can give you the opinion I have formed from certain inquiries I have made.

1162. (*The Chairman.*) I think you might give it in a general form?—Well, I think that the wages of labour have risen in the large towns and along the railways, and in places where large manufactures have been started, and especially the wages of skilled labour. As regards the great mass of the people, I do not think there has been much change, and very often the labourer is paid in kind, paid by produce, so that one could not say that the money wages had risen or fallen. I have made some inquiries as to the cost of carrying the mails by runners; I applied to the head of the Post Office, who obtained from the auditor of the Post Office accounts a statement of the wages paid to what are called postal runners, and I found very little change in the rates. I will put in a paper giving those rates. It goes back for a considerable number of years. There is a rise in the rates up to, I think, about 1870 or so, and since that there has been very little change—a slight tendency to rise. (*See Appendix V.*)

1163. (*Mr. Cohen.*) Would you attribute this hoarding to a deficiency of banking system in India in the remoter towns away from the capitals of each Presidency?—I do not think that the introduction of facilities for banking would much affect the habits of the people in this respect.

1164. Is there a system in India which obtains in this country, and all the other countries of Europe, of taking money on deposit by the different banks?—The European banks certainly do so.

1165. From natives?—They will take them from anybody.

1166. Yes, but do they get them from natives, I mean?—Well, I think the hoarding as a rule is by men who hoard so little individually that no bank would accept their deposits, nor would they themselves be willing to deposit their money in a bank.

1167. I have understood,—perhaps you will correct me if my question is wrong,—I have understood that the post offices throughout India have the same system of investment in Indian Government securities that the English post offices have in English Government securities, and also for taking money for savings banks; is that the case?—I do not know precisely what the English system is, but the Indian Post Office takes money for savings banks, and it will invest money for the public in Government paper in small sums.

1168. Has it had any effect at all in diminishing the tendency to hoard?—The deposits in the savings banks have increased considerably in recent years, but I do not think that the system has had much

effect upon the habits of the people generally in the matter of hoarding.

1169. Do you think that the people would accept notes payable in silver throughout the country?—There are notes payable in silver at present.

1170. Not of small denominations?—They go as low as five rupees.

1171. And it has had no effect in diminishing the tendency to hoard the metal?—I think it has had very little effect.

1172. Do you think it would have any effect if the Indian Government were to do away with the seigniorage for coining metal which is now two per cent.?—I do not think that would have any effect.

1173. It would not promote the circulation of money and prevent hoarding, you think?—I do not think so.

1174. Do you think it would have an influence upon the disposition to hoard if there were a currency common to India and the rest of the world, either by general bi-metallism or by giving India a gold currency?—I do not think it would have this effect to any material extent, because the hoarding depends on the disposition and habits of the people, and by introducing one form of currency rather than another you do not change the habits and disposition of the people.

1175. Can you say that the disposition to hoard has increased or decreased of late years by the spread of railways and the opening up of communications. Is there any diminution in the tendency to hoard?—We know that the deposits in the savings banks are increasing, and we know that capital owned by natives of India has been invested in cotton mills and other mills, and I should say that the tendency was for the habit of hoarding to diminish; but so far as regards the great mass of the people the effect has been quite inconsiderable.

1176. You will agree that this is a very serious question, because with the increased productive capacity of the country they may hoard all the money in the world if they go on at the rate you speak of. You do not think that any of the suggestions which I have mentioned would diminish this tendency?—Nothing I think will diminish it but time and good government.

1177. Turning from that to another subject. I have alluded to-day to the movements of prices in this country oscillating with the movements in the silver market. I think you have prepared a diagram illustrating that very well. Would you have any objection to put that in?—I will put it in. (*See Appendix V.*)

1178. It gives the price of silver in European markets as compared with the general prices of commodities in our markets for the last 25 years?—If you will allow me I will explain how it was prepared. It gives the general prices according to the index numbers of "*The Economist*" for the 1st of January in each year, and the price of silver for the 1st of January of each year in the London market.

1179. The last question I would ask you is this. You have seen the tables prepared by Mr. Palgrave as regards the purchasing power of silver in India for the last 25 years. Do you agree in their being correct?—I have not specially tested them, but there is no doubt, speaking generally, that prices of the ordinary commodities, of the ordinary articles of food, for instance, are now as low as they have been on the average of past years.

1180. (*Sir T. Farrer.*) You know how they were collected, do you not, the figures in those tables?—I have a certain amount of information regarding them.

1181. And it is such as to lead you to think that they are generally correct?—I think that they are sufficiently correct to give a good indication of the general course of prices. I should not like to say that they are correct in every individual instance. Mr. Giffen called attention to the great difference in the prices of Jowar, as shown at Surat and Ahmednagar, when he was examined the other day. I was

not at the time able to explain the difference from personal knowledge, but I have consulted a gentleman who is familiar with those places, and the reason he gave was that Ahmednagar, when prices were very low, had no good means of export, while export from Surat by sea was easy and cheap. This was the case up to the year 1880, I think, when Ahmednagar was connected with the system of railways, and since 1880 the difference in prices between Surat and Ahmednagar is much less than before. He also added that he found, from his experience in India, that any considerable import of grain from one place to another often had a very marked immediate effect on prices, and it did not follow because there was a considerable difference in price that a man could safely undertake a speculation in grain. That explains the particular point brought to notice by Mr. Giffen, the difference in prices in Surat and Ahmednagar; up to 1880 there was practically no good means of communication between the two places, and since 1880 the tendency has been for the prices in the two places to be equalised.

1182. And that rather confirms your notion that the tables may be generally relied on?—As indicating the course of prices they may be generally relied on.

1183. In regard to this hoarding, do you think that these hoards are kept by the persons who make them. They are not lent out to local people, are they?—They would not lend out a hoard. Very often a man has saved money and lends that out.

1184. But would that be included in what you call hoarding?—No, I should not call that hoarding.

1185. You would call that in circulation?—Yes, in circulation. Of course the rapidity of circulation varies very much.

1186. But there is a great deal of local money-lending?—There is a great deal of local money-lending on a petty scale, but it is not always done in coin. A money-lender advances to a cultivator so much grain, and the understanding is that he is paid back in grain with a certain addition at harvest time.

1187. That mode of lending rather interferes with investments in public securities, in loans, does it not?—Oh! certainly, because the rate of interest obtained in that way is much higher.

1188. So that the persons disposed to invest, invest rather in these loans than they do in the public loans?—Certainly.

1189. What belongs to these money lenders is something entirely different from the hoards of which you have been speaking?—Yes, I call that different from the hoards.

1190. (*Mr. Fremantle.*) Can you form any estimate of the capacity of India for hoarding; that is to say, what is likely to be the addition to the hoards yearly?—I have thought of that, and I think it very much depends upon the ability of India to purchase the precious metals. The desire of the people to possess gold and silver is very great indeed, but their means of paying for the two metals is limited.

1191. But their desire to hoard is only limited by their capacity to pay for the precious metals?—Well, their desire for money is like that of other people.

1192. Could you give any estimate of the importations of sovereigns into India?—No, I could not; but there is a considerable import of sovereigns, and always has been, I think, for many years.

1193. Do you think that the people who hoard have any marked preference for gold or silver?—I think as they get wealthy they prefer gold. A wealthy man will prefer ornaments of gold for his family rather than silver, and the very poorest classes use ornaments made of some base metal, neither gold nor silver. There may be some silver in it. It is very much a question of the position of the family as regards wealth.

1194. But the persons who hoard largely would naturally prefer gold?—If they could afford it I should say they would.

1195. (*Sir T. Farrer.*) The wealthier the country gets, unless there is some change, the more likely

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they are to take gold?—I should say the wealthier they are the more likely they are to take gold.

1196. (*Mr. Fremantle.*) If the gold price of silver rose, would not there be a strong temptation to part with the silver and substitute gold in hoarding?—I think that there would be some tendency in that direction. Some people say that the fall in the gold price of silver has led to the larger hoarding of gold, and if so, and if the opposite took place, I suppose it would lead to less hoarding of gold, but I do not attach much importance to these speculations myself. I think that if the gold price of silver rose, there might perhaps be for a time an increased demand for gold. I do not think it would last. With reference to this matter, I may mention that silver is rather more convenient than gold for hoarding, so long as it is the standard

and the currency of the country. That is, if a native of India hoards rupees, they are more easily made use of in case of necessity than gold would be if he had hoarded that metal, because he would have to sell the gold, while he can put the rupees in circulation at once.

1197. But if that superiority on the part of silver were removed, gold might be hoarded in larger quantities than at present?—By making the standard gold, or by making gold a legal tender as well as silver, I think the tendency to hoard gold rather than silver would be increased. I think that could be the tendency, as hoarded gold could be more easily thrown into circulation than at present, and would therefore be more convenient as a reserve.

Adjourned till to-morrow.

Sixth Day.

Thursday, 9th December 1886.

PRESENT:

THE RIGHT HON. A. J. BALFOUR, M.P., the CHAIRMAN, presiding.

MR. D. M. BARBOUR.
MR. J. W. BIRCH.
MR. L. L. COHEN, M.P.

SIR T. H. FARRE, Bart.
MR. C. W. FREMANTLE, C.B.
MR. W. H. HOULDSWORTH, M.P.

MR. GEO. H. MURRAY, *Secretary*.

Prof. Roberts
Austen, F.R.S.

9 Dec. 1886.

Professor ROBERTS AUSTEN, F.R.S., examined.

1198. (*The Chairman.*) I think you are Chemist and Assayer to the Mint, Fellow of the Royal Society and Professor of Metallurgy in the Royal School of Mines?—Yes.

1199. You are acquainted, are you not, with the general scope of this part of the inquiry upon which the Commission are engaged?—Yes.

1200. And you have drawn up a paper, which I have read, dealing with the details of the cost of producing silver by the various methods in use?—Yes.

1201. Perhaps you will be good enough to put in the paper with which you have furnished me. It will be printed in the Appendix to the evidence, and I will try and get out in the course of examination any illustrative facts and arguments which you may be able to lay before the Commission?—If it is printed I should like to supplement it by additional details, if I may be permitted to do so. (*See Appendix VI.*)

1202. Certainly. You deal here with four processes by which silver is produced from the state in which it occurs in nature, and added to the stock of the precious metals of the world?—Yes.

1203. I suppose it would be convenient to divide those methods from our point of view into those in which silver is produced as a bye product, and those in which it is the real object of the industry, whatever it may be?—Certainly.

1204. Evidently there is the greatest difference in the cost of production, according as it is a bye product which perhaps, strictly speaking, may cost nothing, or according to whether it is the main product, in which case, of course, the miners would require at least the ordinary commercial profit upon their industry?—Exactly.

1205. Your first section deals with silver as it is obtained in the refining of native gold, and, without going into details, the conclusion you come to is that the cost of silver by that process may be estimated at the official charge which the American Mints make for extracting silver from gold which is sent to them?—Yes.

1206. Namely $2\frac{1}{2}d.$ an ounce?—I cannot see that there is any incidental charge other than this one, namely, the cost of parting and refining.

1207. Is it necessary before the gold is used for currency or other purposes that the silver should be extracted from it?—It is not absolutely necessary. In some cases a small per-centage of silver might be allowed to remain, but in practice it is always parted before gold goes to the Mint.

1208. Supposing the silver was absolutely worthless, would the owners of the gold still pay this $2\frac{1}{2}d.$ per ounce in order to get rid of the silver?—No, not necessarily, but as a matter of fact it is possible to treat argentiferous gold and auriferous silver together in the same operation, and the result is that silver is always extracted.

1209. However, practically, I suppose it would be admitted that, in the first place, the amount of silver so obtained bears such a small proportion to the total silver produced in the world that it may be neglected?—I think so.

1210. And in the second place in an investigation which is directed towards discovering the causes which alter the relative values of the two metals, gold and silver, we need not take into account a method of production which involves, as one of its results, that for every 5s. worth of silver an enormously larger value of gold shall be at the same time produced. I hope I have made that question clear?—Perfectly clear. This amount certainly may be ignored in the relative estimate.

1211. It is clear that however much you may produce in this way you will not depreciate silver in relation to gold, but rather the contrary?—Yes. It is merely placed in the table as a means of accounting for that amount of silver, in order to complete the evidence so far as may be possible.

1212. I then come to the second process with which you deal, according to which silver is obtained from lead. I understand your method of investigation to be this, you first take the lead ores which are richest

in silver, which are those produced in America?—Yes.

1213. You calculate the cost of mining a certain quantity of lead. You then calculate the amount for which that lead would sell in the Chicago market; and then you find out how much silver must be produced from that lead in order to make the transaction one which would involve no loss to the producer?—Precisely.

1214. And the result of your calculation is that taking one mine with another, taking the average, that is to say, between a rich and a poor mine, both being fairly typical cases, you find that 95 ounces of silver must be found on the average in each ton of lead as a minimum, in order to prevent the transaction being one of loss to the producer?—I do.

1215. But as a matter of fact, the mines in question instead of producing 95 ounces produce about 200 ounces of silver, roughly speaking?—Yes. The small amount of gold they contain being counted for the sake of convenience as silver in this particular case.

1216. So that, without taking into account minute corrections, you may say that about twice as much silver per ton of lead is produced in these American mines as is required to make the transaction one involving no loss?—That is the conclusion to which I have arrived.

1217. And as a direct arithmetical deduction from that you conclude that silver is produced in the American lead mines at the rate of about 2s. an ounce?—I do.

1218. That, of course, assumes that silver is worth in the open market about 4s. an ounce?—4s. an ounce.

1219. In considering these American mines, it is often hard to say, I suppose, whether silver is the bye product of lead, or lead is the bye product of silver. It is a kind of middle case between that of silver produced from gold which we have just considered and that of silver ores which we are about to consider?—Well, it would be very difficult to divide the American mines which produce lead which do pay from those which do not, and this is about a mean; it may at least be taken as a mean between the two.

1220. I suppose that if the lead did not contain silver the lead ores would not be worked in these mines?—In some cases, certainly not, in other cases it would.

1221. And if the lead was unsaleable the mines would hardly be worth working for the silver alone?—Certainly not.

1222. So that you cannot say, speaking broadly, that lead is a bye product of silver, or silver a bye product of lead?—No.

1223. They must be considered together?—And that very greatly increases the difficulty of taking account of the silver coming from such sources.

1224. In order to make it perfectly clear by what method of deduction you arrive at the conclusion that in these lead mines in America silver is produced at about 2s. an ounce, let me recapitulate what I understand to be your statement. You prove, in the first place, that if about 100 ounces of silver go to each ton of lead it will not be a loss to extract that lead from the mines. But as a matter of fact not 100 but 200 ounces of silver exist in each ton of lead, therefore, if silver be worth 4s. an ounce it is quite clear that the silver is produced at half that cost; in other words at 2s. ?—That is my conclusion.

1225. (*Mr. Cohen.*) That is the cost of producing the silver, the actual expenses; but you have not allowed anything for capital, have you? You are speaking of the actual working expenses?—The actual money out of pocket, if I may use such an expression in this relation.

1226. (*Chairman.*) Turning then from the American mines to the European mines, the richness in silver of the European lead mines is considerably less than that of the American mines; is that not so?—Undoubtedly.

1227. In the United Kingdom instead of 200 ounces per ton the amount is only about eight or nine ounces per ton; is that not so?—Yes.

1228. In Spain instead of being 200 ounces per ton as in America, it is about 36 ounces?—Yes, but some of the rich ore is exported from Spain.

1229. In Italy it is about 67 ounces a ton?—Yes.

1230. And I think you have not given us the precise figures for Austria and Germany?—No, I have not. The question there is complicated by the importation of foreign ores. It is rather difficult to say what the per-centage of the precious metal in the native ores would be.

1231. But on the whole the conclusion you have arrived at is, that though these ores are so much poorer than the United States ores, nevertheless the cheapness of labour, and the nearness of the mines to the market, almost make up or quite make up for these disadvantages?—I do.

1232. And you are of opinion that 2s. an ounce represents the cost of production in Europe very much as it does in the United States of America?—I am.

1233. But however that may be, the European production is very little more than one-third of that which comes from the United States from lead?—Yes, about 8,000,000 ounces from the desilverisation of lead.

1234. Your third section deals with the method of obtaining silver from copper?—It does.

1235. But I understand that that process differs from the process of obtaining it from lead inasmuch as the silver in this case is a true bye product?—In nearly all cases.

1236. And that it would not be worth while working the copper in order to get the silver?—I may safely say that this would seldom occur.

1237. And the only question is, not whether it is worth while working the copper mines to obtain the copper, but whether having obtained the copper it is worth going to the cost of extracting the silver from it?—Precisely.

1238. And in a large number of cases it is not so worth while. Is that not the conclusion to which you have arrived?—It is certainly true of a large proportion of the copper ore smelted in Swansea. It contains silver, but it does not pay to extract the silver. Many works altogether avoid treating argentiferous ore.

1239. Then the cost of obtaining silver from copper is simply the cost of desilverising the copper?—Exactly.

1240. You do not include in the cost the expense of extracting the copper from the mine? No. The expense contemplated is that incidental to the desilverisation of the copper.

1241. You consider the silver is so purely a bye product of the copper, that the only cost you have to take into account is the cost of extracting it from the copper after the copper has been taken from the ore?—Yes, essentially desilverisation charges.

1242. And on that estimate you make out that the mean cost of desilverising copper is about 1s. 11d. per ounce of silver?—Yes, I do. The details of that estimate of cost are rather complicated. The Claudet process, for instance, produces silver at a very cheap rate; but that does not refer to a very large quantity. The silver extracted by that process only costs about 5d. for the ounce.

1243. But that process is not applied to copper unless the copper happens to be very rich in silver; is that so?—The process is applied usually to the residues resulting from certain chemical operations, so that it is an incidental amount rather than an important amount.

1244. So that the amount of silver-bearing copper to which this process can be applied is a very small proportion of the whole copper which is desilverised?—It is.

1245. You do not pretend, therefore, that this estimate of 1s. 11d. is more than a rough approximation?—No.

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Austen, F.R.S.*

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1246. But as a rough approximation, you think that on the whole it may be relied upon?—I believe it to be fairly accurate, but I am of opinion that this is the most difficult section to estimate with accuracy.

1247. On the other hand it is one comparatively unimportant, representing not quite one-twelfth of the total amount of the silver produced?—Exactly.

1248. We now come to section 4, which deals with the most important of all the sources from which silver is obtained, namely silver ore. I suppose you would admit that there is an extraordinary variety in the fertility and ease of working the various mines in America from which these silver ores are chiefly extracted?—The details of the processes are very varied, but the processes themselves do not differ very much.

1249. I was rather referring to the fertility of the mines than to the processes of treating the ore after it comes from the mines?—The per-centage of precious metals varies very greatly.

1250. And the depth of mine?—Very greatly.

1251. And the nearness to the markets varies very greatly?—Yes.

1252. So that when you talk of the fertility of the mines of America, it is very much like talking of the fertility of the land in England; of course it varies very much from one district to another?—Yes.

1253. And all you can do is to attempt a rough approximation, an estimate?—Certainly.

1254. Now having to deal with such a variety of cases, what has been your method of arriving at an average?—You have taken, have you not, one special mine as a typical example, "The Bonanza King"?—As an example of a deep mine, a mine 520 feet deep.

1255. Then would that represent what I am describing as the mine of least fertility, by which I do not mean the mine producing the least rich ores, but the mine in which the cost of extracting a certain amount of silver in the rough was the greatest?—Well it appeared to me to be the best mine concerning which I could obtain evidence as to cost. I should not like to say that it was an ideal mine for my purpose, but I was unable to get other details.

1256. Do you imagine that mines of greater difficulty of working still pay?—No doubt; but this is a fairly typical case. But I think it is fair to say that mines of greater difficulty would pay.

1257. And on one side, therefore, of this mine there is a large number of mines more difficult to work, and on the other side there is a large number of mines less difficult to work?—Certainly; many less difficult and some more difficult.

1258. So that this does not represent the average mine; it is more towards the difficult end of the scale?—It approaches the difficult end of the scale probably on account of its depth and the difficulty of haulage.

1259. But you have compared the results obtained by comparison of the working of this mine with that of a large number of other mines mentioned by the Director of the United States Mint?—I have.

1260. And the conclusion you have come to is based on a comparison of all these different examples?—Yes.

1261. You say that it would appear reasonable to accept the results deduced from the working of this mine as representing approximately the average richness of the ore treated and the cost of mining and milling?—Yes; the cost of mining and milling, but not the average richness.

1262. That is not perfectly consistent is it with the statement you have just made, that this mine was nearer the more difficult end of the scale?—I did not mean to imply that I thought it was not fairly typical, but, on the whole, I should be inclined to say that it leaned towards the difficult rather than the easy side.

1263. But on the whole you are of opinion that it does not so far differ from the average as to be misleading if taken as a specimen mine?—It would, I think, in no way vitiate the result.

1264. If then it is to be so taken as a typical mine we may conclude that the cost of extracting silver

from an American silver mine amounts to about 1s. an ounce?—Yes.

1265. (*Sir T. Farrer.*) That is the cost on the spot, I suppose, not after bringing it to the market?—It does not include transport in this case.

1266. (*The Chairman.*) But the transport of the precious metals is not a very heavy item I imagine, is it?—No; not when the metal is actually exported in the state of ingots.

1267. (*Sir T. Farrer.*) And is this ore extracted on the spot?—Yes, not far off, about two miles from the mine.

1268. (*The Chairman.*) I suppose the amount of silver extracted from silver mines in Mexico and South America is not now of very great relative importance?—I have given in table I the amount of silver extracted in Mexico, and I have taken the year 1883 not because these were really the latest figures, but because it referred more nearly to a period for which I could obtain data as to cost.

1269. But in that table you have simply given the gross produce of Mexico and South America without distinguishing whether the silver comes from silver mines or from lead mines?—In the case of Mexico it would be mainly from silver mines.

1270. So that the amount is really very important?—Exactly, and the treatment would be mainly a mercurial one, as distinguished from lead treatment.

1271. Is the method of getting silver out of silver ore always a mercurial treatment?—No. So called "wet" methods are increasing in importance to a very large extent in America; but the wet method hardly applies to Mexico.

1272. Is that because the Mexicans have not had the enterprise to adopt the latest improvement in mining?—Water and fuel are very scarce, and the Mexican ores lend themselves better to mercurial treatment than certain ores in America which may be more suitably treated by wet methods.

1273. Is the wet method much cheaper than the mercurial method?—No; on the whole I am inclined to think it is not, but very few details have been published.

1274. I suppose it depends on the amount of water on the spot and on the nature of the ore?—On the nature of the ore essentially. You would have to go through certain preliminary operations in order to convert ore suitable for treatment by mercury into ore that could be treated advantageously by a wet method.

1275. The general conclusion you have arrived at therefore is that the mean cost by all these methods amounts to about 1s. 8d.?—I do, but I should like to add that I think it is the mean of successful mining and metallurgy.

1276. You have arrived at the mean simply by taking the mean of the cost of the four operations?—Yes.

1277. That is to say the mean of 2½d., 2s., 1s. 11d., and 1s. 5d.?—Multiplying by the amounts which I have assumed to be produced by the respective processes.

1278. In getting your average you have taken notice not merely of the cost entailed by each process, but also of the relative amount of silver which each process produces?—I have. Always assuming that it is justifiable to refer to the total amount produced, the actual cost adopted for each particular operation.

1279. Would you explain that qualification?—In the sense that the 2s., for instance, might not apply to the whole of the 30,000,000 ounces included in the second section, but I have assumed that it is fair to calculate that as the mean cost and multiply the total amount by it.

1280. In fact, the 1s. 8d. is an average of certain averages?—Certainly.

1281. Now I think it is very important that you should explain to the Commission exactly what you mean by the cost of production. There is a statement that I find on the first page of your memorandum to the effect that the business of silver mining is one

of uncertainty and risk, and taking one year with another the expenses no doubt equal, if they do not exceed, the production. You will observe that there is a certain apparent discrepancy between that statement made on the authority, I think, of Dr. Linderman, and the conclusion at which you arrived, according to which the mean cost of producing silver is very decidedly less than one half of the value of silver even at the present depressed price of silver?—I believe that that mean cost of production, as given in the concluding paragraph of the paper, relates to successful mining and metallurgy, because in the case of unsuccessful works the details as to cost are not published, and it is very difficult to get at an estimate in the absence of such published data.

1282. If in any other manufacturing business you found that the cost at which the product could be sold was very decidedly more than twice what that product cost the manufacturer, you would immediately anticipate that a vast amount of capital would flow to that employment, that the production would enormously increase, and that that process of increased production would go on until the price fell to such a point that only the ordinary market profit was obtained?—I should.

1283. Now what I want to get at is the reason which, in your opinion, prevents that going on at this moment in the silver industry? Is it because, making a survey of the whole industry, it really is not a safe and profitable industry, which would appear to be Dr. Linderman's opinion, or is it that the people who have these mines practically find themselves in possession of what economists would call a natural monopoly? I do not know that I made that clear, it is rather an abstract point, but it is the root of the whole question really?—I quite understand. I do not know whether my reply will fully answer it. My impression is that as improved processes are introduced, and as more accurate knowledge is brought to bear on mining operations, you would approach an ideal price, and that at present a great deal of money is wasted in ignorant search, badly directed search, and in the adoption of ill-advised processes.

1284. There are observers who maintain that all the precious metals are produced at a loss?—Especially Del Mar.

1285. Do you concur with that opinion?—The considerations set forth in the early part of my memorandum make me reluctant to express an opinion on that point.

1286. Of course I do not wish to go into the speculative question raised by Mr. Bagehot, though I would ask you whether it is not your opinion that the fact that so much silver is a bye product and is not the main object of the industry which produces it, does not to a certain extent vitiate the broad and known doctrine which Mr. Bagehot very accurately lays down?—My opinion is that on the whole the production of silver is profitable. My attention has been directed to a question asked of Mr. Giffen, No. 620, and I may mention that I entirely agree with him.

1287. Would you read out the question?—You asked him, "Then, there are two very important points connected with this branch of our inquiry which I believe you are not prepared to give us any information upon. One is the total of the precious metals in circulation in the world available for the world's use, and the other is as to the cost of production of the precious metals." His answer was: "As to the cost of production I can tell you nothing, and of course the one difficulty I should have in the matter would be that if I were making the inquiries I should like to know not merely the cost of production in a sort of average way, but the facts as to the point to which you called the attention of witnesses yesterday, viz., the cost of production at which certain mines would stop, and matters of that kind. And then with reference to the cost of production also it must be considered that that is a thing which of itself may be continually changing just as all other things are changing. If you have a rise in wages in one locality, that raises the cost of

production, and if you have a fall in wages, the cost may fall; and you have always to consider that the whole thing is changing,—you may have a mine which is always losing one day, and if you put a better manager over it, it may be making a profit." I entirely concur in that answer, and I am fully conscious of the difficulty, but I think I have arrived at a probable approximation to the cost of production in the case of the successful mining and metallurgy of silver.

1288. Then if Dr. Linderman's observations be just, it is not because mining operations in actual work are otherwise than profitable, but because such a vast amount of money is wasted in the preliminary stages before you can say that the mine is a going concern?—Yes, and in the ill-advised search for the precious metals.

1289. In this estimated average cost of 1s. 8d. you make no allowance I understand for interest on capital?—No.

1290. Or the cost of buying the land?—No. I have been quite unable to arrive at any conclusion on that point.

1291. You can give no estimate as to the preliminary charges?—I could not attempt to make any estimate, because money may be given for a mine, and that may be wasted, and then another company may come to work the mine, and you cannot say what has become of the original cost at all. It is difficult to say how far the initial cost should be brought to account at all.

1292. And I suppose the amount of capital employed in the mine must vary according to the depth to which you would have to go before you reached the rich ore, and according to other local circumstances, about which no general rule can be laid down?—Precisely; and again according to the particular favour with which the mine is viewed in commercial circles.

1293. Then apart from the cost of sinking the shaft and other expenditure of that kind, is the actual capital required for carrying on a mine very large in proportion to the output?—No, not when the actual works intended to open up the mine are complete and working satisfactorily.

1294. To put the same question in another form, can you give us any estimate of the relation that what economists call the fixed capital bears to the circulating capital in working a mine?—Not at the moment. That is a question rather for the miner than the metallurgist, and I have examined this mainly from the metallurgist's point of view.

1295. But you will observe it has a very important bearing upon your conclusions, because when you say that it costs so much to produce silver, I suppose you include a fair interest on the circulating capital, that is to say, on the wages and so on?—I have included the mining charges.

1296. But by the mining charges you do not mean charges of fixed capital, but current expenditure?—Yes.

1297. (*Sir T. Farrer.*) When you say fixed capital, do you mean steam engines and boring?—All fixed plant. Boring for mere exploration is not included.

1298. (*The Chairman.*) That would be included in my calculation; not mere exploration, not mere prospecting, is that not the technical term?—Prospecting generally refers to a new district.

1299. (*Mr. Houldsworth.*) Did I understand you to say that you take interest as one of those charges?—No, not interest on fixed capital. Such interest as would apply to capital employed in plant connected with the mine or works should be included, and a fair allowance is made for it.

1300. (*Mr. Birch.*) That is in arriving at the prices you have stated?—Precisely.

1301. (*The Chairman.*) But how is it under those circumstances that there is not an enormous augmentation in the production of silver if you can sell it at 4s. the ounce, and if you can produce it out of the silver mines at 1s. 5d. under class 4? You would naturally expect that a trade so obviously profitable

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would be one to which an enormous amount of capital would flow, and that that would lead to an enormous augmentation of production?—Well, I am afraid I can add nothing on this point to my answer that my figures only relate to successful operations, not to failures.

1302. You think it is not also due to the fact that practically the happy possessors of rich silver mines are really monopolists?—That is an economic question. I can hardly answer that question without giving it more attention.

1303. (*Mr. Fremantle.*) But is it not the case that an enormous amount of capital is employed, and that the return for that capital is comparatively small?—Yes.

1304. (*Mr. Barbour.*) Is it not the case that the amount of silver ore from successful mines is limited?—Yes.

1305. (*Mr. Cohen.*) You cannot expand the silver mining industry unlimitedly; it is limited by the number of mines discovered?—Yes.

1306. (*The Chairman.*) In that case the happy owners of the mines are practically in the possession of a monopoly?—In one sense they are.

1307. (*Mr. Cohen.*) In the sense that the supply is limited?—Yes. You cannot expand it indefinitely.

1308. (*The Chairman.*) Let me put the case in this way. If coal were suddenly to double in value you would practically have an enormous influx of capital into the mining industry. There is no limit to the number of mines you could open and the amount of coal you could raise for a certain period?—The limits would be very wide.

1309. But silver mining, I understand, is not in that condition?—Certainly not; it differs very widely from the deposits of coal or even of ironstone, which are bedded as distinguished from vein deposits.

1310. Those who have the luck to find mines make a very big profit, but practically their profit is not interfered with by excessive production simply because they have a practical monopoly of the silver mines?—Yes, in that sense a limited stock.

1311. (*Sir T. Farrer.*) And some persons have made very great fortunes by silver mines?—Yes; undoubtedly.

1312. (*The Chairman.*) So that if we could imagine that silver doubled in value, the amount of silver raised would not necessarily augment in anything like that proportion?—No, not necessarily.

1313. The profits of those who own silver mines would increase enormously?—Yes.

1314. But practically the amount of silver thrown upon the markets of the world would not probably be very greatly increased?—Possibly not, but the question is very complicated.

1315. (*Sir T. Farrer.*) Is it the case that there are a number of silver mines not being worked at present which, if the price of silver were doubled, would come into operation?—Yes; I have no data as to the number of mines, but no doubt there are very many in the Western States.

1316. (*The Chairman.*) But still you are of opinion that though new mines would undoubtedly be worked which are now neglected, the quantity produced from them would not be very important?—They would be essentially poorer mines than, owing to unfavourable circumstances, are now not working. A mine in California occurs to me from which ore containing 50 ounces to the ton is simply stored, while richer ore, up to 100 ounces, is worked. In such a case the additional quantity produced would probably be very important.

1317. (*Mr. Cohen.*) Of course that does not include new discoveries?—By no means.

1318. (*The Chairman.*) I do not know whether as a metallurgist you have directed your attention to the probability of large new discoveries being made?—No. That again is rather a question for the miner than the metallurgist. I think it is possible that there may be great discoveries in the Western States; there is much speculation in the San Francisco market at

this very period, based on rumours the truth of which I have no means of ascertaining, that the Comstock is open again.

1319. (*Sir T. Farrer.*) Is there any knowledge existing as to the comparative probability of the increase in the production of gold, and the increase in the production of silver?—Not that I am aware of. I am of opinion that there will be a large supply of gold from Africa, but I do not know whether that bears on your question.

1320. (*The Chairman.*) Is that a question on which you have made independent investigations?—No, not for the purpose of this inquiry.

1321. (*Mr. Barbour.*) These successful silver mines, as a rule, after a time get worked out?—Yes.

1322. So that the whole capital spent on them would have to be spread over the production?—Precisely.

1323. (*Mr. Cohen.*) I notice that you estimate the production of silver at 88,000,000 ounces. Have you seen this book of Mr. Sauerbeck?—Yes; I have. I have taken the amount of silver produced in 1883 merely because it refers to a period for which I could obtain data as to cost of production.

1324. You know Mr. Soetbeer's figures?—I know them, of course.

1325. He estimates the production for the same year at 101,000,000 ounces?—The figures I give are taken from the Report of the Director of the American Mint; they represent fine silver, and nearly correspond with Mr. Soetbeer's figures expressing standard silver.

1326. You estimate the cost of production at 1s. 6d. an ounce, the average throughout the world. Mr. Pixley, when he gave evidence the other day, estimated it at 3s. 6d. I suppose the difference allows for interest on capital, those charges that the Chairman has alluded to?—My impression is that Mr. Pixley refers only to some limited areas in Mexico.

1327. (*The Chairman.*) Do you think you could frame a document on parallel lines with this dealing with gold?—I will do anything the Commission wish me to do. In fact I had begun such an inquiry already. It will be more difficult because the mining of gold is complicated, and the metallurgy comparatively simple, but I will do whatever I can.

1328. (*Mr. Cohen.*) You have brought out facts which are very important as regards the cost of the production of silver, and as regards the field of the production of silver, both of which have an important bearing on our inquiry, and the same principles would apply to gold?—Yes. They would to some extent.

1329. (*The Chairman.*) Undoubtedly it is most important for our investigation that we should have the facts as regards gold?—I might just say, as indicating the kind of difficulty to be encountered, that, in the case of gold washed out of gravel, one part in a million will pay to extract. If on the other hand hard quartz has to be crushed a rich deposit may be unprofitable. The cost depends so much on the difficulties attending the mining and the mechanical preparation of the ore.

1330. But is not the process of washing one which is only possible in the very early discoveries of gold?—By no means.

1331. After you have done the surface washing you have to resort to quartz?—Not if you take the case of "hydraulic," as the Americans call it in California, where you have huge masses of earth and rock washed down by hydraulic power. In such cases a very small per-centage of gold will pay to extract.

1332. (*Mr. Fremantle.*) If you would look at page 3 of your memorandum, you will see that in the second paragraph you mention the cost of the Horn Silver Mining Company in Utah. I think it would be desirable to tell us what the annual outturn of that Company was?—Speaking more or less from memory, that is a very important mining company, and their outturn amounted to 1,400,000 ounces; at any rate, these are very large and important works.

1333. And at the Eureka Consolidated Mining Company which is alluded to shortly afterwards, was that a large amount?—That was not so important as the

other, but it dealt with some 500,000 ounces of silver containing gold.

1334. Have you seen any statistics or papers prepared by Mr. Norman on the subject of the cost of production?—Yes; I have seen a great number of papers. Mr. Norman has devoted an immense amount of time to the investigation, but for the purposes of this inquiry I cannot quite accept his figures, because he has not in my opinion taken the averages quite correctly. Comparing the yields of gold and silver ores he gets at a ratio of 134 parts of silver

to one of gold from calculations of his own, and a proportion of 63 parts of silver to one of gold as the result of information obtained from Mr. Buchanan, President of the Colorado Silver Alliance.

1335. What would be the deduction that you would draw from the whole consideration of the subject of the production of silver?—It seems to me safe to conclude that as silver falls in price, and as the less successful, less well managed mines are closed, you would tend to approach more nearly to these somewhat ideal prices.

The witness withdrew.

Mr. J. W. BIRCH examined.

1336. (*The Chairman.*) A good many questions have come up in the course of examination of other witnesses on which, as an ex-Governor of the Bank of England, you can give us information; and the first question I should like to ask you relates to the economy of the precious metals through an extension of banking facilities. Could you tell us anything either in addition to or as qualifying some evidence given by Mr. Giffen on that subject, with regard to the extension of banking facilities?—A return which I produce shows a great extension of banks within the last 20 years. This extension has chiefly been in the direction of branches and sub-branches in districts not formerly occupied. In 1865 the total number of branch offices in England, Scotland, Ireland, and the Channel Islands was 2,417; in 1885 it was 3,886, showing an increase of 1,469; and banking facilities have thus been brought to persons of moderate means, small shopkeepers, farmers, and others whose transactions were formerly carried out in cash. Thus, small cheques take the place of coin in numerous instances. I notice that where my own bailiff formerly paid in money for sheep or produce he now brings a good many small cheques. The system of country clearing amongst bankers facilitates the use of cheques for the transmission of small amounts. Where the recipients keep banking accounts these return quickly, but where they do not, the cheque is often paid away again, and may be used instead of coin in more than one transaction. Probably the use of postal orders, in itself a species of banking, to some extent also economises the use of coin. These notes have now attained an issue of about 100,000 a day. Some time ago the Bank of England obtained a very large economy of notes by the establishment of a cotton clearing in Liverpool. The economy in notes was something like 150,000*l.* a week.

1337. I suppose that some of these branch banks supply banking facilities in towns where banking facilities already existed adequate to the needs of the inhabitants; in other words, that it is a competition which may affect the profits of banks, but which does not affect any saving in currency?—It saves to this extent, that formerly in country shops they kept a certain amount in their tills, but now they pay it at once into the bank if there is one. In some places they have a bank open once, twice, or three times a week, and in others they have established a regular branch. The money in the neighbourhood is thus drawn in, and then it is transmitted to the head establishment in London, and goes immediately into employment.

1338. But let us suppose that in some country town there is already established a branch of the London and Westminster Bank, and that the London and County Bank subsequently put a branch of their own there; that may affect the profits of the two banks respectively, but it does not add materially to the banking facilities of the community in that town?—No; therefore I am referring more especially to small places where there were formerly no banks at all. Now you have these sub-branches opening everywhere, all over the country.

1339. But this increase of 1,469 banks is not

solely in places where there were no banking facilities before?—Certainly not.

1340. Some of them are in places where banks were previously established?—Yes; and in such places the effect would to a certain extent be, as you said, to draw business from the one to the other, stimulate opposition, and at the same time encourage the development of banking.

1341. Are you of opinion that the limit has now been reached, or nearly reached, of the extension of banking facilities?—I never like to prophesy. I think it is impossible to say. Various means are cropping up for economising money, and a great deal is economised by simple transfer; you cannot tell to what extent.

1342. You heard a witness yesterday explain to us that, in his opinion, telegraphic transfers saved the use of currency less than bills of exchange?—What he stated, I think, was that these telegraphic transfers obliged people to keep larger balances than they kept formerly. That was the commercial way in which he put it, and I called his attention to the fact that people do not keep their money in their tills, and that they keep it generally with brokers or bankers at what we call "at call." When a party has advice of a telegraphic transfer, he immediately calls in the sum requisite, and passes it to his account at his bankers to meet the payment. The money so paid in passes again into use, and at the end of the day the operations are balanced.

1343. But still you would admit that the witness was accurate when he said that a bill of exchange requires no cash to back it, but that a telegraphic transfer does. Whether that cash be "at call" or not, it must be there?—No, I do not think so, because whether a bill has a month to run or three months to run, its day of payment arrives just the same as with the transfer; it is only a payment deferred, for which provision has to be made. It operates in another way, that there are not so many bills offering to discount as there were before.

1344. Do you think that in great commercial cities any further saving of coin is possible?—This depends upon various circumstances.

1345. So that the whole saving that we must look to in England consists in the extension to the provinces of a machinery already used in London, Liverpool, and elsewhere?—There appears to be an extraordinarily small amount of coin current in all our large towns compared with the large sum of our operations. Hardly anybody carries any considerable amount of money in their pockets. If you look round the table we shall probably be found with very little cash in our pockets because we have got our cheque books by which we can draw what we want.

1346. And that process of economising coin can go practically no further than it has already gone?—You cannot tell. I think we see year by year that the economising has gone on increasing on a par with the increase of the population.

1347. I do not know whether you have any information which you could give us with regard to the extension of banking facilities in other countries than England?—No, not sufficiently accurate for public

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evidence ; but between this and when we meet again I shall put that in training to see what I can do. It is a very complicated inquiry.

1348. Have you any information that you could give us as to the total stock of gold in this country in the form of currency?—Various estimates, you know, have been made from time to time. Mr. Miller, a former chief cashier of the Bank of England, made inquiries some years ago, and the late Professor Jevons subsequently made an estimate, but I think we ought to try and get further information on this head. It is very difficult to arrive at any accurate information, but possibly an approximate estimate might be arrived at through information at the various banks. At all events an attempt might be made in the same way as Dr. Soetbeer sought information ; and as regards England we have more command over the sources of information than he had, and we should not rest content without an attempt. The Bankers' Institute being in correspondence with all the bankers in the kingdom might lend valuable assistance, and I produce a letter I have received from the president, Mr. Tritton, tendering the services of the institution.

1349. You are aware that one of the points brought very prominently before the attention of the Commission is the drain made upon the gold resources of the world by the alteration of the Italian coinage from a silver to a gold standard. In order to carry out that operation gold necessarily poured into Italy between the years 1881 and 1883. Have you any information to give us as to the source from which this gold was derived?—Yes ; I produce a statement which was furnished to me by Messrs. Hambro, the contractors for the loan, showing the form in which the gold was supplied, and from whence it came. (*See Appendix.*)

1350. Can you tell us in a few words the sources from which it came?—10½,000,000 lire came from England ; Italy itself furnished 105,000,000 lire ; the greater portion apparently from coin, and only a small proportion of new gold.

1351. Are you of opinion that the amount that came from Italy was drawn from hoards?—I should think so to a great extent.

1352. But you have no evidence of that?—No absolute evidence.

1353. The rest of it was drawn simply from the gold circulation of other countries?—Principally from the gold circulation of other countries. I see that Australia only supplied about 10,000,000 of lire.

1354. Have you any information of a corresponding kind to give us with regard to Germany?—No ; but from inquiries I have made amongst men who ought to know something about it, they seem to be of opinion that about two-thirds of that gold was from French hoards ; and in illustration of that I heard this of one of the leading French bankers, who at the time of the siege of Paris left Paris to go and look at his estate in the neighbourhood. He went up to one of the peasants and told him that he was just come out to look after affairs, that he was very anxious to pay his people their wages, but he had no money disposal under the circumstances. The peasant said : "If 40,000 francs are any good to you I have got them in a stocking under my bed, and I will go and fetch them," and he went and fetched them, and they were in gold coin. The French by their system of issuing rentes at what appeared to be a low price, and giving the advantage to people who applied for five franc rentes, attracted these hoards, and these people rushed in with their money and got the allotments partly with a view to obtain the premium. I think a great deal came in in that way.

1355. But there was no special advantage given to the owners of hoards by the proceedings of the French Government?—Yes. These hoards are generally held by small people all over the country, and the French Government gave to everybody who subscribed for five franc rentes in preference to those who subscribed for 100.

1356. You will notice that the point is one of vital

importance to our inquiry, because one of the points strongly brought before us is that the appreciation of gold is very largely due to the strain made upon the gold resources of the world by the introduction of a gold currency into Germany ; but if two-thirds of that currency were drawn from hoards, or in other words practically came from an entirely fresh supply, that argument to a great extent falls to the ground?—Yes.

1357. Could you therefore put us in the way of getting authentic evidence or further evidence on that point?—Well, I will do my best.

1358. Then without having made any very close investigation yourself on the point, you are still convinced, after conversing with competent authorities, that more than one half of the 80,000,000*l.* required for Germany was drawn from hoards, and not from the circulation of the world?—Well, as far as the circulation of the hoards goes, it was cash, and it would appear to be circulation, but it was not in regular circulation because it was locked up, and these people would only use it when they required it.

1359. Then you would draw a distinction between the hoards of the French peasants and the hoards of which we were told yesterday in India, which practically are quite removed from circulation?—That is a very difficult point to arrive at. A man may have a large sum of money locked up in his house in coin, hardly with the intention of hoarding it, but still keeping it out of circulation ; whereas in India they lock it up with the intention of hoarding it, and no other intention. The effect is the same for the time.

1360. But still if this money had practically been withdrawn for many years from circulation, and if it would not have come into circulation again but for the alteration of the German currency, for the purposes of our argument, we may consider those hoards as hoards in the full sense of the term?—Yes, I think so.

1361. (*Mr. Houldsworth.*) The point is that, according to your information, one half of the amount required did not come from new productions of mines?—No.

1362. (*Mr. Cohen.*) I suppose you would agree that the amount of circulation in the United Kingdom practically remains almost unaltered throughout the year with the usual inflations at the end of the quarterly periods. The amount of notes in circulation throughout the kingdom is about 25,000,000*l.*?—Yes, but that might vary under many circumstances.

1363. It does not vary materially from year to year?—It does not vary very materially.

1364. What I want to arrive at is this, that any addition to the circulation of the United Kingdom is not likely to take place when you find that the variation in the note issue is perhaps not more than 2,000,000*l.* or 3,000,000*l.* in the course of any one year ; that you are not likely to have any circumstances that require or call for any large alteration in the circulation of the precious metals?—I should not think so, but I should not like to answer this without a little consideration.

1365. If you put out more notes you displace metals, and if you call in metals you require notes to take their place?—Yes, as a rule, you would.

1366. (*The Chairman.*) I think as we are discussing hoards it would be convenient if I were to ask you a question with regard to a reply given by Mr. Giffen as to the effect of raising the rate of discount on the supplies of gold in the country. Mr. Giffen stated that he was rather inclined to think that raising the rate of discount above a certain point tends not merely to attract gold from foreign countries where the rate of interest was lower, but also to attract gold from hoards in this country itself?—If I recollect rightly he did not state that as a positive opinion, but as a conjecture which he thought was rather plausible. There are various circumstances connected with this question. In the spring and again in the autumn there is a flow of gold from the Bank to Scotland, Ireland, and the provinces, but we can calculate more or less when it will

return, and, therefore, under ordinary circumstances, we do not attempt to check this outflow by raising the rate of discount; but if simultaneously with this drain, and on a low reserve, we find the foreign exchanges against us, we endeavour to check the foreign demand for which perhaps a rise of $\frac{1}{2}$ per cent. will suffice; and this extra $\frac{1}{2}$ per cent. acts also as a pressure to draw back as early as possible the amounts I refer to as going down to the provinces in the usual way. At other times the rates of interest are high in the countries from which we expect to draw gold, and we have to raise our rate until the object is achieved. With regard to what Mr. Giffen said about attacking the hoards, what I suppose he has not seen quite clearly is this, that at times money is absolutely unlendable by the brokers in London. You cannot get even $\frac{1}{2}$ per cent. per annum for your money. Then the bankers, I imagine, would leave their money in the country, not to have the expense of sending to London. A considerable sum might thus accumulate. Another $\frac{1}{2}$ per cent. or 1 per cent. makes money lendable to the brokers, and then the bankers of the country send it up to employ it. At times you see quoted in the papers the Bank rate as 2 per cent. or 3 per cent., but the real rate may be 1 per cent. at which people are discounting bills, and the brokers will not take money sometimes at any price. It remains in the country, not to have the expense of sending it up to London, and a very small amount in each bank would produce a large amount in the aggregate.

1367. Your view is not that the hoards are touched, but that the reserves of the country banks are affected?—Yes, I do not believe in English private hoards.

1368. (*Mr. Houldsworth.*) Mr. Giffen specially mentioned that when the rate got up to a very high point, 8, 9, or 10 per cent., he noticed that there was a new flow; would that apply to the banks? would not the banks send up their reserves before 8 or 9 per cent. was reached?—Naturally, an exceedingly high rate might induce country bankers to send up all they could lay hands on. The flow, when it gets to anything like that is not so much from the country as from abroad, because, at exceptionally high rates, the Bank of England affects, or has done hitherto, the gold markets abroad, and bankers abroad prefer to hold first class bills on London; it is the best security that they can hold, because they know that those bills at maturity will be paid in gold.

1368a. (*The Chairman.*) To return from the question of hoards to the question of the movement of gold, could you give us any particulars as to the amount remitted to the Argentine Republic, Buenos Ayres, Brazil, and Portugal, either on account of loans or for any other purpose?—In the printed tables you gave us the other day I was struck with the movements of gold. This paper that you have given us groups together South and Central America, including Mexico, and the West Indies. Well, several of these countries are producers of gold, to a more or less limited extent, while others are users of it, and I thought it better to try and make a more detailed statement to see what countries took gold from us. I have only had time to get these reports for this last year, beginning at the 31st of December 1885 till the 1st of December in the present year, but I have asked the Chief Cashier of the Bank to make them out for a longer period. Probably you will be rather surprised to see that the amount sent to Buenos Ayres in these 11 months amounted to 3,352,000*l.* in English gold coin, to Brazil 243,000*l.*, and Portugal 1,464,000*l.* It is rather an important feature, you see, and you cannot get it from your memorandum.

1369. Has that gold remained in the country to which it was sent?—It remains for some time. Apparently it goes into the banks there, and they do not like to let it out. It does dribble back by degrees, but in very small amounts in comparison with the amounts that go out.

1370. But would you consider this drain as one of the permanent requirements of the world for gold currency, or is it not rather to be classed with the ebb

and flow of the precious metals constantly going on between the civilised countries?—No, it is not the ebb and flow in the ordinary sense, because these exports are principally on account of loans made in this country and the interest and capital of these loans will either have to be paid in commodities produced by the countries or in the gold returned to this country, not at all in the ordinary sense of the circulation. Portugal for some years has used our gold coin, and so has Brazil as their currency. We coin it for them gratis, and they make use of our coin. That is why I wish to point out the peculiar position of those countries.

1371. Have you made any investigations into the amount of gold coin used in the arts and manufactures of the United Kingdom?—In 1877, I think it was, the Bank of England started some inquiries with regard to that. We began with Birmingham, and in Birmingham we found that about 10,000*l.* a week was used by the manufacturers, and that they took light gold coin, which we sold to them at weight. They knew exactly the standard, and it suited them best because they could take it in any quantity they liked. But from information I have received during the last few days it would appear that they are now rather taking to buying fine bar gold, and I have asked the staff of the Bank to make inquiries with regard to that and ascertain what facts they can, and I have also requested Mr. Tritton to set the Banking Institute to work in the same direction, with the view to see whether it is possible to come to anything at all accurate with regard to England itself. We must do what we can.

1372. Have you noticed that in recent years, say from the year when Germany began to require gold for her coinage, and the Latin Union ceased to be purely bimetallic, an alteration in the English Bank rate has not produced the accustomed effects?—It has produced the same effects.

1373. There has been no difference?—It may be necessary to raise the rate higher when gold is at a premium in the gold currency countries, as at the present moment happens with France.

1374. But there is nothing in the fact that the country is using gold as a standard which should make gold at a premium in it, is there?—Well there is the double standard you know in France, gold or silver. You can pay to any extent in gold or silver; the same you may in Germany, the same you may in all these European countries.

1375. (*Mr. Barbour.*) And to secure gold you pay a little extra; if you pay a little extra they give you gold?—Yes; you would probably obtain it. The Bank of France could not charge you a premium upon gold coin, but upon bar gold, yes.

1376. (*The Chairman.*) Can you give us the exact par of exchange between England and other countries from which gold is attracted by raising our rate of exchange?—In France the par is considered to be 1*l.*=fcs. 25.22 $\frac{1}{2}$ (25.2215), Berlin 1*l.*=marks 20.43 (20.4294), New York 1*l.*=\$4.865 (4.89).

1377. Can you give us the present rates of exchange?—I think instead of taking the par of exchange I can tell you the specie point, which is by far the best way. There are two ways of describing what is the par of exchange. Taking France for instance, if you put the specie point at which it can come from Paris, and at which it can be sent from here to Paris, it is best.

1378. I believe you have some information from private sources with regard to the present circulation of the precious metals, and also of paper currency in France, Germany, Italy, Belgium, and Switzerland?—I have got that and I will put it in, and the information I have received from Messrs. Rothschild. (*See Appendix VII.*)

1379. I think you told us just now that the Bank of France was holding a very large stock of gold. Could you give us any information as to the amount, and as to the increase, and as to the cause?—I have a statement here which was made up in the middle of September, so I have not altered it. On the 1st of September the Bank of France held 54,000,000*l.* of

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gold, and 23,000,000*l.* of silver, and in 1880 she held 32,000,000*l.* gold, and 51,000,000*l.* silver. (See Appendix VII. A.)

1380. The main point is that whereas it was 59,000,000*l.* in 1876 it sank to 32,000,000*l.* four years afterwards, and has risen again to 54,000,000*l.* Is there any conclusion which you draw from those figures?—That evidently she is drawing in gold and giving out silver instead; that she is apparently to a great extent what we should call hoarding her gold.

1381. But the amount of gold she holds now is not greater than it was 10 years ago?—Exactly, but then look at it with regard to the silver.

1382. Is there any conclusion that you draw from that bearing upon our inquiry?—Simply that she has had no difficulty in increasing her stock of gold when she wished it.

1383. But I suppose you would not say that any country has any difficulty in increasing the stock of gold if it chooses to raise its rate of discount?—Oh, yes, certainly, in my opinion.

1384. Would this country have any difficulty?—This country; but then this country is *per se*. Other countries would have a certain power, but not so much as England.

1385. Would not Germany attract money if she raised her rate?—She would attract money. A country can attract money as long as there is great confidence in it, and it pays in gold, but supposing there is war you might go to any rate and not be able to draw it.

1386. As long as there is peace a civilised country would be always able to attract money by raising the rate?—In Spain for instance I do not think it would produce that effect, nearly to the extent I have indicated just now.

1387. Spain is not sufficiently commercially advanced; there is no great confidence in her; no great market?—There is no great market for large stock exchange operations, which is worked upon here as well as in France and Germany. Now Berlin has become a very large centre of operations, and so can do it.

1388. Is there any information that you could give us about the Spanish currency relative to our inquiry?—The Deputy Governor of the Bank of Spain has sent me a very interesting account. It goes to prove that gold is being replaced by silver, and out of the very large amount of gold coin in Spain during the last 10 or 15 years a very large portion of it has found its way into France, and been replaced by silver, although the balance of trade would probably be in favour of Spain.

1389. What is the legal tender in Spain, gold or silver?—It is strictly bimetallic, and it has not joined the Latin Union, and the Government buys silver by tender and coins it, and makes a profit.

1390. (Mr. Barbour.) It is a gold standard country, practically?—No, you can pay in the one or the other. Both gold and silver are legal tender in Spain, and at a fixed rate.

1391. The Government will receive either gold or silver in taxes?—In payment of taxes, yes, either the one or the other.

1392. Is there any gold in circulation?—There used to be a good deal, and there is some now. I

was talking the other day to the manager of the Rio Tinto Mines, and he told me that they had no difficulty in paying their workmen who can earn as much as a gold coin, in gold.

1393. (The Chairman.) Is there not a free coinage?—No, no free coinage; the Government coins both.

1394. The Government coins both, but would they coin both in unlimited quantities if you brought it?—No, they would not; they buy their gold and they buy their silver. It is simply bimetallic.

1395. (Mr. Cohen.) I would ask you a question on a point that has not been touched, and that is the question of light gold. Do you think that the light gold held by the banks constitutes in any way an addition to the items causing scarcity in this country?—Well, if there was a scarcity it would. If it was locked up because people did not want it, it would not go into the circulation.

1396. You have heard the amount put at 10,000,000*l.* sterling; would it be so much as that?—Well, it might be a great deal more.

1397. It is only the English banks that would lock it up because the Irish and Scotch banks issue notes?—I do not think a very large amount is locked up.

1398. Do you think that if 1*l.* notes were issued it would economise the use of gold, or simply displace an amount of gold, and have it sent abroad?—That would depend upon what security you gave for your 1*l.* notes. If 1*l.* notes were issued against gold it would economise the wear and tear of the gold, and if against securities, they would displace gold to the extent they were put into circulation.

1399. You do not think that it would displace the gold to send it abroad?—It would, of course, displace it. I mean if you allowed the notes to be issued without a backing of gold the gold would go abroad and you would have the notes.

1400. (Sir T. Farrer.) Do you know what the ratio between gold and silver is in the Spanish currency?—1 to 15½.

1401. And you say gold is leaving Spain?—Yes, it has been leaving.

1402. The currency both of Austria and Russia is paper, is it not?—Yes, I believe so.

1403. Their currency is practically paper with a silver standard?—With a silver standard. I see also in the memorandum from Italy that gold was drawn from Russia to Italy, and of course would have been replaced by paper. In the Bank of France they hold 99·8 of bullion and the notes in circulation is 107.

1404. (The Chairman.) But is not that a larger proportionate reserve than is usual against note issue?—It is extraordinary.

1405. Of course their liabilities are not purely note liabilities. That gold reserve is also a reserve against ordinary banking liabilities, is it not? The Bank of France do not divide the issue department from the banking department as the Bank of England do?—No, they do not.

1406. Therefore their whole liabilities must be taken into account before we say their gold reserve is a large one, is that not so?—They are not bound except by the law of 1884, which provides that they must not issue more than some enormous amount which they have never done. There is a limit.

Adjourned till Tuesday, 1st February 1887.

Seventh Day.

Tuesday, 1st February 1887.

PRESENT :

THE RIGHT HON. A. J. BALFOUR, M.P., the CHAIRMAN, presiding.

MR. D. M. BARBOUR.
MR. J. W. BIRCH.
MR. J. CHAMBERLAIN, M.P.
MR. L. L. COHEN, M.P.

MR. L. COURTNEY, M.P.
SIR T. H. FARRER, Bart.
MR. C. W. FREMANTLE, C.B.
SIR JOHN LUBBOCK, Bart., M.P.

MR. GEO. H. MURRAY, *Secretary*.

MR. SAMUEL MONTAGU, M.P., called and examined.

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1407. (*The Chairman.*) The question which the Commission is anxious to investigate, with your assistance, is how far the demand for gold is likely to diminish in the future through the increase of banking machinery either in England or on the Continent, and for that purpose we thought you could give us information drawn from a large number of countries?—The result of the information that I have here would show, what every City man knows, that the banking facilities for London are certainly superior to anything that you can find in any other part of the world. When you come to the facilities for the transfer of funds from one part of the kingdom to the other, there we are behind other countries. For instance, the Bank of England has only nine branches outside of London, and in Germany the Imperial Bank has 184 branches; and even Holland and Belgium have far superior facilities for the transmission of money to and from private individuals to those which we have.

1408. Do I understand you to say that England is less fully banked than Holland or Germany?—Of course there are more private bankers in England, and there are certain facilities afforded; but for the general public the facilities are far greater for the transmission of money in Germany. For instance, you can pay in money to any extent at any one of the 184 branches of the Imperial Bank in Germany, and it is paid out next day without any charge, whereas the Bank of England makes a charge of 6*d.* or 1*s.* per 100*l.*, except in certain cases under special arrangements.

1409. But what your evidence so far indicates is, that the Bank of England is not on a level with the Imperial Bank of Germany and the Bank of Holland in the matter of branches; but that is quite a different question, is it not, from that which we have to determine in trying to come to some conclusion as to whether England is more or less “banked”?—Yes. But I may mention with regard to the Bank of England that we have to withdraw gold to send periodically to Scotland and to Ireland, which does not occur in other countries. Bank of England notes being limited to England and Wales they are not legal tender in Scotland or Ireland. This limitation necessitates the transmission of gold, and therefore there is no economy in the circulation of gold like there is abroad.

1410. You mean that from a banking point of view Ireland and Scotland are foreign countries to England?—Almost; it is not precisely that the bank note does not circulate, but it is not a legal tender.

1411. But at all events specie has to be transmitted from London in payment of debts to Scotland and Ireland, whereas in Germany they would transmit instead bank credits?—They would pay into the *giro conto*—as it is called; and the system prevails also in Italy, Belgium, and Holland; that is that the bank will transmit money, without charge, to all the important towns in the kingdom. That constitutes a great economy in the use of bank notes and gold.

1412. Then do you deduce from that that Germany and Holland do with a smaller quantity of gold currency than the United Kingdom?—Yes, in proportion to their numbers.

1413. In proportion to the number of transactions?—Both to the number of inhabitants and to the number of transactions. There is also a great facility which I should like to point out in regard to the collection of small bills for tradesmen and others through the Post Office, which prevails in France especially, and in Germany also.

1414. Then do I understand your opinion to be that in England the banking machinery, which is to a certain extent a substitute for the use of currency, is less perfect than on the Continent?—In regard to the small transactions and to the small tradespeople.

1415. That is not the common view, is it?—I think it must be, because there is no facility, say for a small tradesman who has no banking account, to deal with other parts of the country which there would be if we introduced here the system prevailing in Germany and France of collecting accounts through the Post Office.

1416. But if the machinery by which debts are paid in distant parts of the country is more perfect on the Continent than it is here, is it not true, on the other hand, that in England almost every man has a banking account, which results in an immense economy of the precious metals to which there is no parallel on the Continent?—Yes, I think that the facilities for banking in London, as I said before, are vastly superior.

1417. But would you not extend the same proposition to the country?—There is no system of clearing in the provinces generally. There is a little in Liverpool, I think, but there is no clearing generally, and I think that for the conduct of very small transactions we are behind the Continent.

1418. Would not every tradesman in Newcastle or Birmingham have a banking account?—Not the very small tradespeople.

1419. But at all events more than in towns of a similar size on the Continent?—Yes.

1420. I quite understand that your evidence goes to show that for the payment of debts between one centre of industry and another in England, we are behind the Continent?—Especially for small debts; not so much for important amounts.

1421. I perfectly understand that; what I wish to know is whether that is not more than compensated by the economy of the precious metals, owing to the national habit of keeping banking accounts which does not prevail to the same extent in any foreign country?—I think so. I am only pointing out a defect in the system, not that the system is inferior, taking it as a whole. In fact, I believe it is vastly superior.

1422. Then which of the two systems has the greatest effect in economising the precious metals?—With the exception of the periodical transfer of gold to Scotland, and occasionally also to Ireland, I think that this country economises gold fairly well. If the

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currency were in a proper condition. What I was particularly anxious to call your attention to was the facilities for small transactions, which are extraordinary in Germany, such as collections through the post and postal telegrams. You can telegraph a payment of 400 marks in Germany through the Post Office at a very small cost, and you can also insure registered letters.

1423. We have nothing like that here?—I have made inquiries in Austria, Germany, Belgium, France, Italy, and Holland. Those are the six countries in which I have found greater facilities, and especially Belgium, where you can insure a letter up to 400*l.* at a ridiculously low rate; it is equal to 2*s.* per 1,000*l.*

1424. Is that done by Government intervention?—Yes; through the Post Office, which is under the control of the Government.

1425. It is not done through the machinery of the National Bank?—It is under the same control, I believe, as the National Bank. The governor of the National Bank in Belgium is also in the Post Office administration. In Germany the charge for sending 20*l.* through the post is 40 pfennig, or 5*d.*, which is the cost of a postal order, and then they charge a commission of 6*d.* up to 20*l.*; but if the telegraph and post office are not in the same building, there is an extra charge of 3*d.* It costs about 1*s.* to send 20*l.* by telegram through the Post Office.

1426. In every town of any size in England, and still more in Scotland, you will find either a bank or a branch of a bank?—Yes.

1427. Is there anything like that condition of things to be found in any foreign country except America?—Yes, in France the different financial establishments, the *Credit Lyonnais* and the *Société Générale*, have branches in almost every town, and they give great facilities for the transmission of money and cheques. Also in Italy there is a great number of private banks, and, as I said before, there are much greater facilities there for the general public, because it is not necessary to keep a banking account to transfer money, but the person who receives it must have an account with the Imperial Bank of Germany.

1428. But these French institutions of which you speak, do they correspond exactly to our banks?—Almost. They correspond very nearly to our joint stock banks, not to the private banks.

1429. Is it the habit of every trader in France to keep a banking account?—No, certainly not.

1430. They keep the money necessary for carrying on their transactions in their houses?—They do so considerably more than in this country.

1431. And that necessarily leads to a considerable waste, or at all events to a considerable increase of the amount of the precious metals which are required to carry on the work of the country?—Yes.

1432. You have no means of saying whether the loss which foreign countries undergo by the absence of the habit of keeping banking accounts, compensates for the superiority of the machinery which you have just been describing, for payment of small debts at a distance?—I should think there is as much economy of gold, taking it as a whole. I think they are developing their system of banking so as to economise currency, and with their other advantages they might pass us; but I should think, taking it as a whole, the economy of gold, if gold were of proper weight, would be greater in this country.

1433. A large number of authorities are of opinion that England cannot be better "banked" than it is?—I quite agree that the general system of banking is superior in this country.

1434. And that no great economy of the precious metals in the future can be looked for by any improvement in our internal machinery?—Yes, by permitting the Scotch banks to have their excess of notes, covered by Bank of England notes, instead of by gold. A large amount of gold goes periodically from London to Scotland, and comes back again, most needlessly, and those withdrawals have an effect upon the money market. These gold movements periodically to

and from Scotland and occasionally to and from Ireland are quite unnecessary considering that ours is a United Kingdom.

1435. England now requires about, say, 90,000,000*l.* of gold sovereigns to carry on the transactions of the country. Do you think that that amount is likely to be diminished by any alteration which we may anticipate taking place in the banking machinery of the country?—Yes, certainly, it could be diminished. I think it is greater in proportion to the number of inhabitants than in any other country.

1436. In proportion to the transactions, or only in proportion to the inhabitants?—It is not necessary if you had the suggested improvement with regard to gold movements in Scotland and Ireland, and if you had 1*l.* notes for England you would not require anything like the circulation of gold that we have now.

1437. Have you made any estimate of the amount per head required by England, as compared with that required in France, Germany, and Italy?—No. I only know that we commonly understand that there is a considerable amount of gold in France, but not very much more than in England, and there the country is larger. The amount in circulation in France I do not think is materially greater than in England. That is the general opinion, but it is very difficult to ascertain.

1438. Should you think that the reason of that is that the French have contrived to improve their method of payment of debt between towns?—No. I think they have not yet acquired the habit of using it; they never had the gold in circulation to the extent that we have. We have had the luxury of a gold circulation for so long that it has been rather abused.

1439. The amount of currency, not of gold alone, per head in France, is not greater than it is in this country?—No.

1440. It is only in the small transactions that there is anything to imitate in any other country?—There is nothing except for small commerce.

1441. Do you see any signs on the Continent of an approach to our system, by which similar economies may be obtained in the currency?—Yes, in France and in Italy; also in Germany and Belgium they are copying us as rapidly as they can, and the cheque system is becoming more and more developed; in later years and even in later months there is a marked difference.

1442. Then do you expect an economy in the use of the metallic stock of the world which would really be of importance from a monetary point of view?—I do not know that it would be very important. It will facilitate transactions which are now somewhat hindered, and I suppose it would reduce to some extent the metallic circulation; but to a greater extent it would economise the use of bank notes.

1443. Let me put the same question in another way. One contention with which you are familiar is that gold has appreciated and prices fallen through the great strain that has been placed upon the gold circulation of the world, through various causes which I need not enumerate; do you think that the facilities which are being gradually adopted in France, Italy, and Germany will have any material counter-acting effect?—Not with gold.

1444. But gold is now the circulation of Germany, Italy, and, more or less, of France?—Yes; but it has not got into very much use as yet, they have so many small notes which they have always been accustomed to use. In Italy you see no gold; in France you see more gold; but in Germany you see little gold in circulation, and if Germany were to prosper materially, I should think they would require more gold in circulation. What I mean by cheque facilities is for the transaction of business, and saving the transmission of notes to and fro rather than of gold. I do not think the Germans have in proportion anything like the quantity of gold in circulation that we have, and therefore, if they could afford it, it would rather have a tendency to increase, the same as in the United States.

I do not think you will economise gold. You may perhaps prevent further appreciation through economy. Otherwise I think it would go on appreciating. It is very recently that Germany has acquired a gold circulation, and you see very little in travelling. They have still small bank notes in circulation.

1445. But you would be prepared to hold that it is an advance to substitute gold for notes?—No, I do not. It is an advance to Germany, because it is only recently that they have been able to have gold instead of silver. It is something like 12 years.

1446. At this moment, of course, notes in Germany can be changed for gold at sight; it is a convertible paper currency?—It is; but gold is not obtainable in large quantities for exportation.

1447. But do you anticipate that the Germans ever will take to using more gold than they do? will they not adhere to notes like the Scotch?—No, I think that they will not. I think that they have been used for a great number of years to notes, and they are gradually getting out of it. They have notes as low as 5s.; and they have no occasion if they can have a gold circulation to have notes so small.

1448. But the Americans, I am given to understand, are taking to notes of that value from preference?—One-dollar notes. Since the disappearance of gold in America, when greenbacks alone were current. It takes a good many years to make the change, but I think the tendency is to get rid of very small notes all over the world, because they are not so desirable as coin.

1449. But the genuine Scotchman prefers a dirty pound note to a clean sovereign?—A 1*l.* note I do not consider a very small note.

1450. You think anything under 1*l.* would gradually disappear?—Yes. In fact the Bank of France has withdrawn all its 20 and 25-franc notes. They have in France nothing smaller than 50 francs. That is a case where a great country like France has practically withdrawn its small notes.

1451. Do you know the grounds on which they have adopted that policy?—I think it did not quite pay the banker to have them so small. The expenses of the circulation, and also their desire to get more metal into circulation, were given as reasons. I do not know that they have acted quite rightly in taking away the 25-franc note, because other countries rather preferred them, but certainly the tendency of civilised countries is to get rid of the very small notes.

1452. Then may I summarise your evidence in regard to the Continent in this way: that there is a tendency towards the economy of the precious metals through the increase of banking facilities on the model of England, but that this tendency will be to a certain extent—perhaps completely—counteracted by giving up their small notes and substituting for them metallic currency?—Yes.

1453. (*Sir T. Farrer.*) Silver or gold for the smaller notes?—I should think that they would be more likely to use silver for the very small notes.

1454. (*The Chairman.*) So that this change would not affect the question which I put to you a few minutes ago regarding the strain on the gold currency?—No, I do not think it would. I think the tendency to take more gold into circulation in Germany is only because they have not been in the habit of having it, and the novelty of it may perhaps induce them to take more into circulation, but it is a very difficult point to determine. I do not think I should like to pledge myself to it, but in Germany one account is that they rather like the 20-mark note, but I do not know whether they like the 5-mark notes. The Treasury only issues notes as low as 100 marks, which is 5*l.* Besides these notes there were still in circulation at the end of 1885 about 138,000,000 of Reichskassenscheine of 5, 20, and 50 marks each, which are very useful to the public.

1455. Do you think the public would prefer gold circulation to that?—No, I should think not. I should think the 20 and the 50 mark notes they would

keep. They would prefer to use silver rather than the 5-mark notes.

1456. So that, so far as the small notes are concerned, which you think will be given up by these nations; there would be no increased demand for gold?—No, I should think not.

1457. And, therefore, there would be nothing to compensate the economy which would be produced, according to your investigations, by the adoption of English banking methods in those countries?—No, I do not think it will have a material effect upon the gold.

1458. Do you think that any economy in the use of gold or silver is likely to occur from increased international facilities of exchange?—From all countries the reports are that the postal orders are very insignificant, and that the bullion transactions with the Continent as a general rule have diminished, with the exception of Germany and France, in which they continue on a large scale.

1459. I suppose a great deal of the bullion transactions is simply due to the fact that the holders of bullion think that they can make rather more in France than they can in England, the rate of discount being higher in Paris than in London?—For the settlement of the balance of transactions.

1460. It is simply that there is no other cause?—And also the exchange is worked by the arbitration of stocks, and by a larger interest in one place than another. The balance of trade is brought about by the transactions in stocks, and also by the higher price given for money.

1461. Then may I take it that for many years past bullion has only gone from one country to another to settle the balance of trade?—Except in the case of America, Italy, and Germany, which have only recently introduced gold into circulation. There is an important item in Germany which, I suppose, you are aware of, that is the war chest of gold, about 6,000,000*l.* sterling, which is kept as a war reserve.

1462. (*Mr. Birch.*) It is much larger now?—No, that is the present figure. In Germany it is not believed that there are any large amounts of precious metals hoarded, with the exception of the amount the Government and the "Notenbanken" keep, and the "Reichskriegsschatz" (German Empire war treasure) of 120,000,000 marks in the "Juliusthurm" at Spandau.

1463. (*The Chairman.*) That is insignificant compared with the gold the Bank of France has, is it not?—Yes, the Bank of France has generally between 40,000,000*l.* and 50,000,000*l.* sterling.

1464. Have you any ground for thinking that no economy is likely to occur, through the improvement of banking machinery, in the amount of bullion required to settle international transactions?—No, I think not.

1465. Have you any other facts you would like to lay before the Commission?—I do not know whether you wish to touch upon the question of international bi-metallism, I mean an arrangement with foreign countries with regard to fixing a ratio between silver and gold.

1466. That is a question that will occupy the attention of the Commission, but we have hardly reached the point at which we could discuss it?—Very good.

1467. (*Mr. Barbour.*) Is it not the case that in America notes for very small amounts are rather coming into fashion than otherwise? In the eastern part of America, at any rate, there is no tendency to give them up?—I was in America two years ago, and my experience was that most people would dislike very much those one-dollar notes, many of which you could hardly read. I saw a great many dollar pieces and occasionally gold. The fractional notes, as you are aware, were given up a few years ago, and I do not think the one-dollar is coming into favour.

1468. You think the use of the paper dollar is not extending?—No, I think not.

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1469. (*Mr. Birch.*) Did I understand you to say that the receiver of the telegraphic transfer in Germany must have an account at the bank?—No, the receiver in the *Giro* account for the transfer of money not by telegram. The transferee must have a banking account. You pay in at Hamburg, and if the man has an account with the branch of the Imperial Bank at Bremen he will receive the money the next day free of charge.

1470. It is not necessary that the sender should have an account. I pay in 5*l.* at Bremen which I want to be paid at Hamburg. I need not have a bank account, but the man who receives it at Hamburg must have an account?—Yes.

1471. It is a facility, but it is only half a facility?—Yes. I believe in Italy and in Belgium there is no occasion to have an account with the National Bank. They give the cheques out at a very small cost. In Italy, I think, it is 50 centimes, equivalent to 5*d.*, for any amount.

1472. Though the Bank of England has only nine branches, and the Bank of Germany has 184, we have of the joint stock banks something like 2,400 branches, which would render every facility it is almost possible to conceive in the shape of paying in money?—You could send money from London. You cannot bring it to London free of payment, because money available in London is always in demand in the country. It is worth, you may say, a premium, therefore you can send money away from London, but you cannot bring it back except by paying a commission.

1473. There is a convenience in London being the great centre where all these operations are arranged through the clearing-house. I should imagine we are pretty well "banked." Then you have post office orders here for any amount you like, perhaps not quite so cheap as in Germany?—No, I beg pardon, you cannot send by telegram through the post here, as you can there, and you can collect bills through the post in France and Germany. You can protest bills and clear bills through the Post Office at a small charge.

1474. With regard to the note circulation, it appears that people prefer notes. If you look to the Bank of France you will see that of late it has held about the same amount of precious metals that it has had of note circulation. The other day they had 100,000,000*l.*, and they only had 110,000,000*l.* of issue?—Their maximum is 160,000,000*l.*, their deposits are three milliards and a half, that is 140,000,000*l.* The maximum was raised in 1872. It has been raised from 2,800,000,000 fr. to 3,500,000,000 fr. In 1871 it was raised from 2,400,000,000 fr. to 2,800,000,000 fr., and in 1872 to 3,200,000,000 fr., and in 1872 it was again raised to 3,500,000,000 fr.

1475. I heard yesterday that there is very little silver circulating in Italy?—Exchange on France is at a premium of about $1\frac{1}{4}$ per cent. in Italy, therefore it must be that they cannot get even 5-franc pieces. They cannot get gold, and 5-franc pieces must be scarce. The exchange is higher now than it has been since the resumption of specie payments, and has moved up very much in the last few days.

1476. It would appear that there is room for a little silver to go there?—The bank will not part with gold or silver excepting in very small quantities. They ought to part with their silver and gold because the exchange is so much against them. The exchange has risen from 25.30 to about 25.70, which is the present exchange.

1477. Therefore if it was possible to tap the Bank of Italy there would be no difficulty in making a profit on exchange?—The National Bank will not part with its coin. The Italian 5-franc pieces will not be taken currently in France. They will be taken mixed. They will not take them alone; one-third may be Italian, one-third Belgian; that is the maximum proportion.

1478. (*Mr. Cohen.*) You spoke of 1*l.* notes in this country. You are aware, of course, that the circulation which we have in England varies but slightly

from 24,000,000*l.* to 26,000,000*l.* Is it not the case that if we issued 1*l.* notes there would be a displacement of gold to the extent of the 1*l.* notes which would be issued?—Yes; the gold would go to the bank.

1479. It would go abroad, would it not?—Not necessarily, unless the balance of trade was in favour of other countries.

1480. What economy of gold would take place by the issue of 1*l.* notes?—That gold would not circulate but 1*l.* notes would.

1481. The gold would remain in the Bank of England?—To be utilised if needful by the bank. It would not be worn in circulation.

1482. Is it not the case that in America they have ceased to coin gold coins of less value than 5 dollars?—I am not sure. They have $2\frac{1}{2}$ -dollar pieces; but it may be as you say, I do not know.

1483. They have ceased the last few years to coin $2\frac{1}{2}$ -dollar pieces which are equal to our half-sovereign?—No; I think not.

1484. You made a statement in the House of Commons, to which I think I may refer, as to the light gold constituting a lock-up, and therefore an outlay to this country to the extent of 10,000,000*l.* sterling, that 10,000,000*l.* of gold was useless in this country in consequence of the quantity of light gold held by the banks. Do you consider that has any bearing upon the question of an appreciation of gold?—I think it has a bearing. I have mentioned that in the House of Commons. I originally fixed it at about 5,000,000*l.*, but from information I have collected, and from my own experience in the years that have passed since then, I am inclined to think that quite 10,000,000*l.* of gold are held in excess of the requirements through the coins being light. I have had it put at even a larger sum, but then it was from an Irish bank, and I believe in Ireland the light gold is a very excessive proportion of the circulation.

1485. You spoke of the practice of sending sovereigns backwards and forwards at term times to Scotland. Does not that "sweat" the sovereign, to use a common expression, and reduce its weight?—That is only because the Bank of England has a great number of sovereigns which only just turn the scale. It is not worthy of notice if it were not that when the sovereigns come back some are cut in consequence of the amount of wear by being sent backwards and forwards. Excepting that our sovereigns wear away quicker than others on account of their composition being softer than most other gold coins, it is very unimportant. The Bank of England must possess many millions of gold that can barely pass the scale. Of course if they weigh them again they would cut some of them, or ought to do so. If you take them out and send them anywhere and bring them back again there would be some light, because they are already in many cases on the verge of disqualification.

1486. (*Mr. Courtney.*) As I understand your evidence, the outcome is that there is a movement in the economy of metal abroad by the development of banking?—I think it is more an economy in the use of bank notes than of metals, because, having bank notes, they would very rarely send metallic money from one part to the other.

1487. You spoke about the *Crédit Lyonnais* having branches throughout the country, and of tradesmen having accounts with these branches. Do the tradesmen draw cheques on the branches?—Yes.

1488. In payment of the sums payable within their own area?—Or they will give cheques on the different branches at very trifling cost.

1489. But before that usage would not they keep a store of coin and make payments in coin?—Bank notes. They would not necessarily keep coin when they have Bank of France notes of every denomination. The economy of all trading facilities is in making the use of bank notes necessary rather than of actual coin; where they have convertible paper.

1490. Substituting cheques for bank notes?—Yes, and movements in Germany through *Giro Conto*. That is so important a facility that it prevents the

transmission of bank notes from one city to the other.

1491. Is there any observable contraction in the issue of notes?—I do not think so. There may have been even an extension in Germany on account of trade having improved. The German foreign trade has very largely increased.

1492. But confining our attention to France, where these societies have their branches, is there any observable contraction in the issue of the notes of the Bank of France?—I think there may be some variation. In 1884 there were 3,101,000,000 issued, and in 1886, 2,913,000,000 francs. There is a slight diminution in 1886, something like 3,000,000*l.* sterling.

1493. That might be attributable to other causes?—Yes.

1494. You do not notice a general contraction going over many years?—No.

1495. With respect to the small notes, which you say have been withdrawn in France, when were they first issued?—I can only speak from memory. I think the 25 franc notes have been withdrawn some three or four years.

1496-7. When were they first issued?—They had been issued a considerable number of years previously.

1498. 50 francs is the lowest now?—Yes.

1499. You think that the 50-franc limit is not a recurrence to an old limit?—In fact, in the time of the First Republic, they had only paper assignats.

1500. Is the usage in Germany for merchants selling to retailers to draw bills?—Yes, and in France especially. For any sum, however small, the seller draws on his buyer however distant he may be, from one part of the kingdom to the other. He will draw a bill, and the bill may be collected through the Post Office.

1501. But bills with a certain amount of time to run?—Yes, generally.

1502. Is the usage to have them payable at one centre?—No, it is quite the reverse, because almost all over the Continent you will find more bills drawn on a city which is not a capital. For instance, there are more bills drawn on Hamburg than there are on Berlin; there are more bills drawn on Marseilles than there are on Paris.

1503. There is a decentralising influence in banking in France and Germany?—Yes; also in Belgium. There are more bills drawn on Antwerp than on Brussels.

1504. Having regard to the economy of currency, whether coin or notes, would not there be a great economy if there was one centre of liquidation established?—Yes, there would; but on the other hand there is a certain reserve in money being held in each city which makes the transactions more solid. Credit is not used up to the hilt as it is in this country.

1505. Quite so. That is a confession that there is a capability of economy?—Yes, but it has its drawbacks.

1506. If we had all payments in coin there would be great solidity?—Yes.

1507. Is there any movement in favour of the establishment of a centre in Germany?—I think not. I very rarely see bills drawn made payable in Paris in preference. They are drawn on the places to which the goods are shipped, such as Havre, Bordeaux, Marseilles. They would be drawn on those cities and they would very rarely be made payable in Paris.

1508. With regard to that phenomenon to which you drew attention, the periodic transmission of bullion from London to the sister kingdoms, is not that due to the fact of the establishment, in a large degree, of a common centre of liquidation?—It is due to the law that requires that the banks should hold gold against the excess of their note issue in Scotland.

1509. Quite so; but how has the coin got to London?—It simply travels twice a year. There is no necessity for the coin in Scotland at ordinary times. It is simply on those occasions twice a year when there is a large demand for notes. The Scotch banks, as a rule, have the gold in the boxes and simply send it

back again, pay the freight to and fro, and cause a disturbance of the money market.

1510. Yes; but if there existed in Scotland and Ireland, the United Kingdom in fact, many centres of liquidation of bills, as in France and in Germany, you would have retained stores of coin at these different centres as the means of liquidation, and there would not be this periodic sending to and fro?—I think that periodical sending to and fro is so abnormal that you cannot deduce any argument from it. It is peculiar to the relations between Scotland and England. I think if there were centres, as you say, in different parts of the country, they would retain still only the coin that they would require for their ordinary use, and they would not keep for four or five months in the year what they would only require to use for one month. It would be a waste of interest.

1511. One of the directions in which you indicated that we might have an economy of currency of coin was the avoiding this periodical transmission?—Yes, that would be a certain and complete saving if they could issue their excess of notes against Bank of England notes, and the Bank of England kept the gold. There would be no special movement of gold at all.

1512. In order to carry that out, in Scotland, it would be necessary to have Bank of England notes of 1*l.*, would it not?—No; because they issue 1*l.* notes against sovereigns, and the sovereigns are not used at all. It is simply a foundation for their excess issue of notes.

1513. In order to have a guarantee fund against their issue, must not they have the means of liquidation in the same denomination as what they issue in?—That is if there was any chance of a run on the bank. They would, of course, require to have a currency that would be alone receivable in Scotland, but this is not an occasion of people applying to them for cash for notes, but solely for notes on credit.

1514. And then they have to get cash in order to meet the possibility of their coming back again?—Yes, quite so.

1515. With respect to this easy means of transmission of money in Germany, is that machinery self-sustaining?—It cannot pay; there is no charge at all in Germany or in Belgium. There is 5*d.* charge in Italy, but that is nominal. It is for any amount. You might have 100,000*l.* transferred for 5*d.*

1516. This is in fact a service undertaken by the State gratuitously?—It is undertaken by the bank, and, no doubt, to its ultimate advantage, because it induces or enforces almost everybody to keep an account there. Otherwise they cannot receive the money.

1517. Is the bank required by the State to give these facilities?—I should think that it is required by the State, because most State banks now are doing the same. The Italian bank has only recently adopted the same system. They can transmit money throughout Spain by means of the Bank of Spain, without charge or at a very small charge.

1518. You have no means of telling us whether a particular bank either gains or loses by these transactions?—I think the country gains, and the bank ultimately derives advantage by attracting customers.

1519. (*The Chairman.*) Would the system which you are recommending be consistent with the free development of private banks. I include, in private banks, the joint stock banks?—I should think it would be an interference with their business, decidedly.

1520. It is only consistent, in fact, with a state of things in which one national bank does almost the whole banking for the community?—It is so.

1521. (*Sir T. Farrer.*) When you speak of notes, I suppose in most of these countries a certain amount of bullion is kept against the notes?—Certainly, in every case, or else it would be a forced currency.

1522. Then the economy which is caused by the notes is an economy in the sending about of the precious metals, not an economy in the actual quantity of precious metals used?—Excepting that it is not

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usual to keep the full amount of notes issued in specie and the balance is utilised profitably.

1523. Are you aware that in America they are now making a fresh issue of small silver notes, what they call silver certificates against silver?—Yes, I know, but it is most absurd to make a distinction, because, if they are a legal tender, you can change your silver notes against gold notes, and what is the object? As a matter of fact they are at full gold value now. They must be interchangeable and therefore useless.

1524. There is complaint of the large silver dollars?—They want the half dollars. My own impression is that it will not be many years before the Americans will do away with their one and two dollar notes, perhaps only the one-dollar, and retain the two-dollar notes.

1525. Did I understand you to say that stocks are now largely used to settle international balances?—They are not used with that object, but they do furnish the means. For instance, it may be that we might owe a large amount for wine to France, and if France brought foreign stocks in London they would not require money for their wine.

1526. That is a process that largely economises the use of gold and silver?—Yes.

1527. Have you any information as to the hoarding of the precious metals in foreign countries?—The general opinion is that there is nothing of importance hoarded in Austria, Belgium, France, Germany, Holland, and Italy, with the exception of the 6,000,000*l.* war treasure in Germany.

1528. (*Mr. Fremantle.*) To return for a moment to the question of sending gold to Scotland at stated periods, is not that transmission due to the fact that the circulation of gold coin is very limited, and 1*l.* notes largely used, and that therefore the only way to obtain gold to show the Government inspector is by importing it, so to speak, from England?—That is so.

1529. And that would have to be done under any system of banking, would it not?—If, for instance, a Scotch bank, instead of receiving 50,000*l.* of gold, had a certificate from the Bank of England that they held 50,000*l.* at their disposal in the bank, it ought to answer a similar purpose.

1530. But as matter of fact, in banking, to hold bullion generally means actually to have bullion in stock, does it not?—Yes.

1531. Can you tell the Commission whether there is any agio on gold coin in France as against silver coin, or whether they are freely interchangeable all over France?—Not in general circulation. The general circulation in France is indifferent; you receive gold and silver indiscriminately.

1532. I think you said that in America there was certainly no premium as between gold and silver notes?—I take it there cannot be, because the moment they are declared a legal tender, then if there is a plentiful supply of all kinds of legal tender, they must be interchangeable.

1533. It would depend upon the supply. If the supply of silver notes were very large they might go to a discount as against gold notes?—No, because you see the currency is only at a premium for abnormal uses. Gold is at a premium for exportation or for hoarding; therefore, unless there was a panic or something in favour of gold, you would not have gold tender notes at a premium, because gold would only be at a premium for exportation.

1534. Could you tell the Commission whether you think the transmission of coin could be largely saved by an extension of the postal order system in this country?—I do not think so; postal orders are very useful, and I think the charge is moderate; but it is very seldom I think that large amounts could be sent through the post in the form of coin.

1535. (*Sir John Lubbock.*) Have the reasons which have induced the Bank of France to withdraw their small notes been placed upon record?—I can only speak from memory. But I believe it was

because they were badly made, and consequently were more frequently forged than the larger notes. All over Europe, and perhaps all over the world, the 20-franc, or some similar note, is very much used.

1536. Can you tell us whether it is the case that in Italy there has been found to be much forgery of very small notes?—I have particulars about forgeries, and they are very insignificant as a rule.

1537. Could you put in any particulars on that point?—Yes, I could. I have the fullest information with regard to the cost of small notes and with regard to forgeries.

1538. I had understood that there was a considerable amount of forgery of the small notes of the Banca del Popolo?—I believe you are right, that the private bank notes have been forged. They are badly-made notes.

1539. Then with reference to the facilities for the transmission of money from place to place in this country. You are aware that, by means of the country clearing, if a person in Birmingham, for instance, has to make payments in Liverpool, or anywhere else, he can draw a cheque on his bank and transmit that through the post to the person to whom he has to make payment, and no charge is made for the transmission?—If he has a banking account.

1540. So that practically the facilities for banking are as great as those in Germany?—Yes.

1541. As regards other transactions, they can be effected by means of postal orders, as you yourself said, at a moderate charge?—Yes, but there is no provision made in this country for a man who has no banking account dealing, say, with a manufacturer in London. Unless he had a banking account he would have no machinery for collecting his account, therefore, for the small trader, the facilities are not so great in this country.

1542. But most small traders have banking accounts?—I should think a great number of small traders in the East end never have a banking account. Small transactions for 1*l.* or 2*l.* could not take place with the same facility in this country as they could in France or Germany. No banker would care to be troubled with such small amounts.

1543. But your case is this. A very small man who has not a banking account has 1*l.* owed to him by a person, say, in Sheffield. If they both had banking accounts and the man saw fit to have his account paid at once, the man would get his cheque immediately. If they had no banking accounts the man who owed the money could get a postal order at once and the other would receive the money?—It is easy enough for a man to pay his account by means of a cheque, but it is not so easy for a small man to collect what is due to him.

1544. I quite understand if the man in Sheffield does not wish to pay there might be difficulty in forcing him to pay, but if he did wish to pay there would be no difficulty by a postal order?—Except that there is delay. If a bill is presented to a man through the Post Office he would pay it at once rather than have it returned protested. One of my correspondents in France says that there is an enormous amount done in small commerce between different parts of France by small traders, who are assisted immensely by the Post Office.

1545. Then would you advocate that the moment a person owed another person money, that other person might be able to draw upon him without notice through the Post Office?—It depends on the necessities of the case.

1546. With regard to insurance. You are aware that letters transmitting valuables in this country can be insured for a very small sum?—Not so small as I mentioned in the case of Belgium.

1547. Is there much difference?—I should think that the lowest charge in this country would be 6*d.* per cent., 5*s.* per 1,000*l.*, and in Belgium it is 2*s.* per 1,000*l.*, less than half. But I must say that in France it is 2*s.* per cent. It is only in Belgium that the charge is so moderate.

1548. Now, with regard to the question of the Scotch banks and the amount of gold sent down, I think you have already stated that you do not attach any importance to the wear and tear of the gold sent down and coming back, because that is practically very slight. Your allegation is that the fact of the Scotch banks having to transmit gold down to Scotland, absorbs gold and disturbs the money market?—In some degree, yes.

1549. But supposing that they were to take bank notes. Under the present law the Bank of England is required to hold gold for all notes over and above a certain amount, and therefore, practically (except as regards the matter of wear and tear, which you say is immaterial), for that purpose the notes and the gold are the same, and would it not have the same effect on the money market whether the Scotch banks sent down 2,000,000*l.* of bank notes or 2,000,000*l.* of sovereigns?—No, it would not have the same effect, because it might diminish the reserve of the bank, but the bank would know where the notes were, and the exact time of their arrival, whereas very frequently the bank rate has been raised because 500,000*l.* of gold and even less has been taken out.

1550. Then you consider that though the bank is required to hold gold against all the notes, it still makes a great deal of difference whether gold is taken or not taken?—It makes a great difference.

1551. But would not the Bank of England know just as well where the notes are going as they know where the gold is going?—I do not think the bank would consider the drain of gold to Scotland serious to the same degree as a drain to the Continent, but still the effect of diminishing the small quantity of gold held by the bank is much greater than a diminution in its reserve.

1552. But my point is not as between the transmission of gold to Scotland or the Continent, but whether you actually thought it made a difference so far as the money market is concerned, whether the 2,000,000*l.* that went down to Scotland went down in the form of notes or gold?—Some difference.

1553. Do you think it would be a material difference?—It would make an appreciable effect on the money market at certain periods. The effect would not be produced if they took bank notes.

1554. Do you think from your experience that there is any case in which the Bank of England have raised the rate of interest because the Scotch

banks sent down gold to Scotland, and would not have raised the rate if they had sent down notes?—If the notes were withdrawn instead of gold, and the money market was not thereby so much disturbed, then the Bank of England would only be in a better position by having the notes sent than the gold sent, and I think that the discount houses would not look upon notes withdrawn with the same degree of feeling as they would with gold being withdrawn. They might apprehend an advance in the bank rate, and so cause it.

1555. That would be, however, an error on their part, would it not?—It would be, in fact it appears to me, very childish altogether to send gold simply to bring it back again.

1556. I now gather that, in your opinion, it may produce a different effect on the money market, but under the existing law you think it ought not?—It ought not. I am quite of your opinion.

1557. There is no doubt that if we had an issue of 1*l.* notes in this country the stock of gold would be materially economised?—Certainly.

1558. But I gather from your evidence that, apart from the issue of notes of a smaller denomination, there is not likely to be further economy in the use of gold in this country?—You might have notes of 2*l.*

1559. If we issued notes for less than 5*l.* I have no doubt we could economise gold, but there is no other way in which you could economise gold in this country?—No, I think not; 1*l.* notes would be better.

1560. Is it not the case as regards coinage that practically no gold coin worth less than 10*s.* has ever been found to be popular?—It is so. The five-franc pieces in France have been a mistake. They are still in existence. They are costly; they wear out very much more readily in proportion, and it is a great mistake to my mind to have gold coin under about 10*s.*

1561. (*Mr. Fremantle.*) Is it not a fact that the coinage of gold five-franc pieces has been discontinued by the last Convention of the Latin Union?—I believe they have discontinued coining them, but they are to be had. My firm had a large quantity recently. They are used, I think, more for ornament than for use.

1562. (*Sir John Lubbock.*) Therefore you do not think gold pieces of less than 10*s.* are ever likely to come into extensive use?—That is my opinion.

The witness withdrew.

Adjourned till Friday, February 4th.

Eighth Day.

Friday, 4th February 1887.

PRESENT :

THE RIGHT HON. A. J. BALFOUR, M.P., the CHAIRMAN, presiding.

MR. D. M. BARBOUR.

MR. J. W. BIRCH.

MR. J. CHAMBERLAIN, M.P.

MR. L. L. COHEN, M.P.

MR. L. COURTNEY, M.P.

SIR T. H. FARRER, Bart.

MR. C. W. FREMANTLE, C.B.

MR. W. H. HOULDSWORTH, M.P.

SIR JOHN LUBBOCK, Bart., M.P.

MR. GEO. H. MURRAY, *Secretary.*

MR. HENRY WATERFIELD, C.B., was called and examined.

1563. (*The Chairman.*) You are Financial Secretary, are you not, at the India Office?—I am.

1564. And you come here as representing the case of the Government of India?—Yes.

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1565. The difficulty of the Indian Government in one word is that they have a certain number of fixed charges to pay in England in gold, that they receive their taxes in silver, and that therefore they suffer heavily by any fall in the price of silver relative to gold?—Yes, that it enhances the number of rupees that they have to pay.

1566. Could you give us the figures of the Indian Budget illustrating that position?—According to the budget of 1886-7, the gross revenue is estimated at 75,798,700*l.* (I may say that, in speaking of pounds, I mean tens of rupees, unless I expressly say that they are sterling figures.) That figure of 75,798,700*l.* includes the railway and other departmental receipts of all kinds, which are more strictly a set-off against payments than real revenue.

1567. I suppose railway receipts mean the receipts from the traffic on railways belonging to the Government?—Belonging to, or guaranteed by, the Government.

1568. But what are departmental receipts?—I may take as a case the contributions by the officers of Government towards their superannuation. That is a receipt under superannuation, which is a set-off against the charge for superannuation. It is included in the gross revenue, but is more strictly a deduction from the charge for superannuation. In the Indian accounts all the figures are entered gross, and, when I speak of the revenue being 75,798,700*l.*, I am including all receipts of any kind; but, in order that the Commission may understand the real financial position of India, I shall proceed to explain it on the net figures, by deducting from the amount of the principal heads of revenue the cost of collection, and by deducting from the expenditure the receipts in each particular group. For instance, there is a receipt from interest on loans by the Government which comes in as a credit, but which is set off against the charge for interest. That kind of set-off runs through almost every head of the accounts.

1569. Quite so. You deduct, of course, the cost of working the railways?—In the case of the railways (which appear on the side of net expenditure), I deduct their receipts from the cost of working them (including the charges for interest); in the case of irrigation, I deduct the sums received from those who take the water, the water rents, from the charges; and so in every case. Under army, the sale of stores is a receipt, but I treat it as a set-off against the charge.

1570. Estimated in that manner, what is the net revenue?—The net revenue is 44,249,900*l.*, of which nearly 2,000,000*l.* is appropriated to local purposes.

1571. That is to say, it is paid back to the provincial governments?—No, that is another point altogether. I mean by local purposes that it is only received by the Government on condition of being spent within the district in which it is raised.

1572. In fact, they are what we in England should call local rates raised by the central government?—Quite so.

1573. All this revenue is received in silver?—Yes, the whole of it.

1574. What has been the increase in the last 10 years in the net revenue?—In 1876-7 the net revenue was 38,215,000*l.*; in 1886-7 it was estimated at 44,250,000*l.*, so that the increase in the 10 years has been 6,035,000*l.*

1575. Would you explain under what heads this increase should be classed?—The land revenue has increased by 2,180,000*l.*, but the receipts for 1876-7, owing to the famine, were less than in the previous year by 1,650,000*l.*, so that the true increase of the land revenue in the 10 years may be taken as only 530,000*l.*

1576. Perhaps you will explain to us, before we go further, how that increase has taken place? The land revenue is chiefly under settlement, is it not?—It is under settlement. In the case of the great province

of Bengal it is a permanent settlement. In the larger part of India it is settled for periods of 20 to 30 years.

1577. Is this 530,000*l.* increase merely an increase of rents during that time, then, in the rest of India?—In some of the districts the settlements have expired, and have been resettled, involving a larger payment to the Government. In some cases of estates under permanent settlement, default has been made, and the Government have taken possession of the estates and received the revenue, and in that way been able to raise it. But, as a rule, it comes from a fresh settlement having been made on the expiry of the old settlement.

1578. An increase of rent at the end of a lease, in fact?—Yes.

1579. Would you go on with the several heads?—Under excise there is an increase of 1,596,000*l.* Under assessed taxes and provincial rates there are increases of 1,385,000*l.* and 984,000*l.* respectively, owing to the special taxation imposed in the years 1877-8 to provide a surplus for insurance against famine, and imposed this year to meet the additional military expenditure.

1580. This additional taxation to meet these two exceptional causes of outlay is derived from assessed taxes and provincial rates wholly, is it not?—Yes; I have put these two cases together, because they are the only two in which additional taxation has been imposed.

1581. What are provincial rates?—They are levied on the land and usually collected with the land revenue, but applied to local purposes, such as education or hospitals, or the construction of roads, in the district, and in Bengal there is a rate for public works throughout the province; but at the time when the special taxation was put on to meet the charges for famine, a provision was made that a small portion, not to exceed 10 per cent. of the funds, might be taken for general purposes throughout the province, and a further rate varying from 1 to 4½ per cent. on the annual value of the land in Northern India was imposed to meet the charge for famine throughout India.

1582. Is that paid into the provincial exchequer or to the central exchequer?—The whole of the revenue of India is collected by the provincial governments for the central government, and the allotment between the central and provincial governments is a special arrangement which the Commission, I think, need not trouble itself about, because for the purposes of Government it may be considered as all general revenue.

1583. Provincial rates are in fact a land tax put on in addition to the fixed land revenue?—Yes, but on condition that it shall be appropriated to specific purposes. It is not available for expenditure on general purposes.

1584. Would it have been supposed to have been a novel interference with the contracts entered into between the Government and the cultivators of the soil if it had been applied to general purposes?—It would have been, except for the very special purpose of provision against famine, and there it was justified on the ground that, as it could not be said in what district a famine would occur, it was fair that the whole province should contribute towards the famine charges throughout India, but with that exception the provincial rates are appropriated to expenditure within the district or province in which they are raised.

1585. The distinction seems rather a subtle one; however, it is hardly within our province?—If the Commission would like it, I would give a short explanation of the provincial system.

1586. It seems to me to have some bearing on the possibility of raising future taxation, so I think perhaps you had better?—The Government of India felt that the only way to keep down expenditure was to give the provincial governments an interest in the collection of the revenue and in the expenditure of the money; and in Lord Mayo's time, about the year 1870, the system was begun of giving to each provincial

government the responsibility for the expenditure under each particular head, according to its budget for the year, and also the advantage of the revenue which it could collect under each particular head, according to a certain proportion settled in the budget. For instance, to take the case of excise, the excise revenue is necessarily collected, entirely I may say, by the provincial government, the central government could have no influence over the larger or smaller collection, and the revenues are allotted between the Imperial and the provincial governments.

1587. I understand that the land revenue was settled in perpetuity or for fixed periods?—Yes.

1588. But in addition to the land revenue there is a land cess which is not fixed permanently or for long periods. Could that in your opinion be increased and applied to general purposes by the Government?—The land cesses which were put on to meet the provision for insurance against famine are additional to the rent which is paid by the landholder. They were put on by special legislation, for the specific purpose of providing a surplus of revenue over expenditure which shall be available to meet the charge that was anticipated on account of famine relief; but the revenue so derived was not appropriated merely to the charge for famine relief in any particular year, because it was felt that that charge would occur at irregular intervals, and that what was necessary was not to put on taxation in the year in which the charge occurred, but to have a surplus year by year which should be used either in reduction of debt or in construction of works that would keep down this charge, so that, when a famine occurred, the reduction of expenditure occasioned by the appropriation of this surplus should be equal to the charge that then arose. It was estimated that, on a series of years, 15,000,000*l.* might have to be spent in 10 years, and accordingly provision was made for raising taxes or reducing expenditure to the extent of 1,500,000*l.* each year. But the Government of India, in so appropriating it, never earmarked it for any specific purpose, because from the nature of the case that they had to meet it was impossible to do so; still I do not think that it could be said that the Government could at any moment appropriate that money to meet general purposes, unless they could satisfy themselves that they had already applied a sufficient sum to the purposes for which the additional taxation was imposed.

1589. Will you continue your enumeration of the items in which there has been an increase?—I think the stamp revenue is the next, in which there has been an increase of 803,000*l.*

1590. That is simply due, I suppose, to an increase of trade?—An increase of litigation, I may say, almost more than trade, for the larger part of it is received from stamps for civil justice. The remainder of the increase in the net revenue is caused by comparatively small improvements of 296,000*l.* under opium, which is rather a reduction of the charge than an increase of the revenue, of 253,000*l.* under forests, of 80,000*l.* in the salt revenue.

1591. Is the 80,000*l.* increase in the salt revenue due to increased consumption on the part of the people or to increased taxation?—Increased consumption, for there has been a reduction in the taxation.

1592. Would you go on with your enumeration?—An increase of 61,000*l.* under registration, and of 17,000*l.* in the tributes from native states. The latter are fixed payments made by the native states, in some cases for the maintenance of a force to keep order in the state, in some cases rather as a tribute to the paramount power, but they do not vary from year to year, except that perhaps occasionally a small sum may be commuted, or there may be fees paid on succession.

1593. (*Mr. Barbour.*) They are generally made under treaties, are they not?—Yes.

1594. (*The Chairman.*) The trifling increase is owing to alteration of treaties or expiry of old treaties?—Yes, or to accidental circumstances in the year.

1595. Do the registration receipts imply increase of commerce?—It is an indication of the extent to

which the people of India have availed themselves of the power of registering their records of title, on the payment of a small fee for doing so.

1596. Would you now enumerate the items on which there has been a reduction?—The customs revenue shows a reduction of 1,242,000*l.* due to the remission of all import duties except those on salt, arms, and liquors. (I may say that the salt revenue is not credited under customs, but under the separate head of salt.) And the refunds, and assignments and compensations, have increased by 378,000*l.*, chiefly in consequence of the payments connected with the arrangements made for the salt revenue in certain native states.

1597. What are refunds, assignments, and compensations?—I have classed them together as being deductions from the revenue, but they are distinct. The refunds and drawbacks are on account of overcharges under customs or under any other head in which the payer proves that he is not liable to the charge, and the excess is then refunded to him. The assignments and compensations are, mainly, payments made to the native states as compensation for giving up their right to levy a duty on salt or transit duties on goods passing through their states, and the increase of 378,000*l.* is to a large extent to be accounted for by the arrangements made in connexion with the salt revenue.

1598. Which of these items, in your opinion, is susceptible of increase to meet any sudden emergency?—I may perhaps begin by saying what is not susceptible of increase, in my opinion. The land revenue, which is settled in perpetuity or for fixed periods, and the tributes from native states, together amounting to 19,831,700*l.*, are not susceptible of increase to meet a sudden emergency; and also it is not possible to reduce the payment of 1,301,000*l.* for assignments and compensations, which has to be deducted in order to arrive at the net revenue, so as to obtain the figures in the manner in which I am giving them to the Commission. The duties from salt, stamps, excise, provincial rates, (which last head, however, is mainly appropriated to local purposes), customs, and assessed taxes, together amounting to 18,616,500*l.*, *might*, perhaps, be increased if absolute necessity arose, but the Government of India have stated their opinion that such a measure at present is open to the gravest objection.

1599. The objection being, I suppose, the discontent that would be aroused if taxation were increased?—Certainly; and also I must remind the Commission that it is not possible to put on taxes and take them off again, as the exchange fluctuates from time to time. Therefore I hold that such taxes can hardly be held as capable of increase to meet a sudden fall of exchange. The net receipts from forest and registration are petty, amounting to only 526,200*l.*, and are of an administrative character, not being exacted for purposes of revenue, though the charge for registration could be increased within certain limits. There only remains the opium revenue, 6,576,500*l.*, which it has sometimes been supposed would improve with the fall in the price of silver; but the payment per chest at recent sales in Calcutta has been lower than at any time during the last seven years.

1600. The fact being, I suppose, that silver has not fallen in India?—I think to a great extent it is due to that cause, but at the same time the opium revenue is, owing to the arrangements with China, in what I may almost call a precarious state. It is, perhaps, more likely to fall than to rise.

1601. From the precarious character of the treaty relations between the powers?—I mean that the amount of revenue received from opium is dependent on the consumption in China, and is affected by the competition of the opium grown in China; and, further, the tendency of the recent treaty is to enable the Chinese Government to collect their dues more fully, for which reason the merchants exporting from Calcutta will be able to give a less price at the sales.

1602. So much for the revenue. Would you now

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give us the heads of expenditure?—The net expenditure, by which I mean the expenditure excluding the direct demands on the revenues, that is, the cost of collecting the revenue, and the assignments and compensations, and also deducting the departmental receipts, amounted in the year 1876–7 to 40,799,000*l.*, and in 1886–7 to 44,068,000*l.* It increased, therefore, in the 10 years by 3,269,000*l.*

1603. Has this increase of expenditure been an increase in India, or in England, or in both?—In India the net expenditure has been reduced by 324,000*l.* In respect of expenditure in England there is an increase of 3,593,000*l.*, of which the sterling expenditure accounts for an increased expenditure of 1,081,000*l.*, and the exchange is heavier by 2,512,000*l.*

1604. (*Sir T. Farrer.*) Is that 2,512,000 sterling or tens of rupees?—It is not exactly either. The addition of 1,081,000 to the 2,512,000 will give 3,593,000, which is the number of tens of rupees that has to be paid for the expenditure in this country, but, if you observe, the figure that is added to the sterling is not exactly either sterling or tens of rupees.

1605. (*The Chairman.*) The sterling expenditure of India in England has increased by 1,081,000*l.*, and the amount of extra rupees it has got to pay in order to liquidate that debt in gold is 3,593,000?—2,512,000 has to be added to the 1,081,000 in order to find the amount of tens of rupees that the sterling expenditure costs. In order to defray the gold payments in England, it is necessary to remit from India 3,593,000 tens of rupees.

1606. Instead of 1,081,000*l.* as you would have had to remit, had there been no alteration in the exchange?—Had the rupee been worth 2*s.*

1607. The rupee, I think, never has been worth 2*s.*?—Not for nearly 30 years.

1608. So that in reality part of this loss by exchange implies no additional loss through the fall of exchange at all, part of it has always existed, ever since the rupee has been really worth 1*s.* 10*d.* whilst estimated to be worth 2*s.*?—Part of the charge for exchange; I would not call it loss by exchange.

1608*a.* (*Mr. Cohen.*) I think that 2,512,000*l.* is the increased charge in 10 years, not 30 years?—Quite so. For nearly 30 years I said the rupee had not been actually worth 2*s.*

1608*b.* 2,512,000*l.* is the actual increased charge from the fall of the exchange in 10 years. It does not go back to the time when the rupee was 2*s.*?—It is the actual increase in 10 years.

1608*c.* (*The Chairman.*) What you give is the amount that has to be added to the sterling expenditure in order to give the tens of rupees which that sterling expenditure costs?—Yes.

1609. How has this reduction of expenditure in India been attained?—The net military expenditure has increased by 1,531,000*l.*, and the net charge for civil departments by 1,393,000*l.* On the other hand the charge for interest has been reduced by 1,679,000*l.*, and the railway revenue account is better by 1,026,000*l.*, while the charge for famine relief and insurance is less by 783,000*l.* Under the remaining heads there has been an increase of 240,000*l.*, and the final result is a reduction to the extent of 324,000*l.*

1610. The diminution in the charge for interest, I suppose, simply corresponds with the diminution in the capital debt?—That, again, I am sorry to say, is rather complicated. The practice with regard to the public works is to treat the amount of capital expenditure on railways during the year as debt borrowed for the public works, and to charge interest thereon in the railway revenue account. It frequently happens that the Government has not really borrowed to the full extent of the capital expenditure, but has defrayed part of it from revenue or deposits; and, by dividing the debt into two parts, ordinary debt and the public works debt, adding to the ordinary debt the real

amount of the loan, and withdrawing from it the amount of capital expenditure which is put to the public works debt, the ordinary debt may actually be reduced, and in most cases is reduced on the result of the year, so that the charge for interest on debt, as distinguished from that chargeable to the public works, has been reduced in the 10 years by 1,679,000*l.* There has been an increase, perhaps corresponding roughly to that reduction, in the railway and irrigation revenue account, which has been paid for by the receipts from the public works.

1611. Against the public works account?—The public works account, not the railway account solely, but the public works account generally. The capital is charged against public works. The interest on that part of the debt is charged against the railway and irrigation revenue account.

1612. But the railway revenue account has improved, has it not?—It has improved in the 10 years to the extent of 1,026,000*l.*

1613. That is due chiefly, I believe, to the increase of traffic?—And also to the opening of fresh railways and the traffic on them.

1614. The diminution of 783,000*l.* for famine relief and insurance, how comes that?—The charge for famine relief itself in 1886–7 is very small indeed; happily, owing to the good harvests in India, there has been very little in the last few years, but in 1878 an arrangement was made by which 1,500,000*l.* should be provided from revenue to meet the charge for famine and insurance. In the year 1876–7, with which I have been comparing the present year, there was a very heavy charge for famine relief, amounting to 2,145,000*l.*; and, as 1,500,000*l.* is now charged altogether, of which 138,000*l.* is debited to the railway revenue account, the charge under famine relief and insurance is 1,362,000*l.*, or less by 783,000*l.* than in 1876–7; but, of that 1,500,000*l.* only 1,000*l.* is estimated to be spent on the direct relief of famine, and all the rest is set aside for the reduction of debt or construction of works calculated to relieve famine.

1615. The increase in the military expenditure is due, I suppose, in the main to recent events in connexion with the north west frontier?—Yes, very largely.

1616. But part of it is directly due to the fall in the exchange, is it not?—Owing to the practice of fixing the daily pay of the British soldier in sterling, and to the Treasury annually determining the rate of exchange at which that pay shall be converted into rupees, the rate being based on the gold price of silver during the previous year, a charge of 284,000*l.* has been included in the estimate for 1886–7, which would not have been incurred but for the fall in exchange.

1617. (*Mr. Courtney.*) Would there be no sum in 1876–7?—In 1876–7, the soldier was paid at the rupee rate fixed for his pay which had existed for many years. A few years ago when the exchange began to fall so heavily, the soldier complained that he was not receiving in silver the equivalent of the rate of pay to which he was entitled as a British soldier; and, on that complaint being examined, it was agreed that the rate which was adopted by the Treasury in regard to Hong Kong, and other colonies where British soldiers are paid in silver, should be the rate of exchange used in determining the amount of the pay of the British soldier in India, and that his pay should be increased so that he should receive for his daily pay the gold value of the silver to which he was entitled under his contract.

1618. When was that made?—This arrangement was made with effect from the 1st of January 1884. This is the fourth year in which the additional pay has been given.

1619. The fact is that the soldier's pay in India in rupees has been increased on the ground that the rupee does not go so far in India?—No, that was not admitted, but on the ground that without a certain increase he did not receive the equivalent in silver of the gold payment to which he was entitled.

1620. (*Mr. Birch.*) He was entitled to the twentieth

part of a sovereign?—Yes, for every shilling due to him.

1621. (*Mr. Courtney.*) Then you hold that he gets more than he would have got?—He gets more than he would have got under the former system, and he gets more rupees than he would get if the exchange had not fallen.

1622. Under this contract he really gets substantially more, or what goes for more in India, than he would have been entitled to, if there had been no fall in exchange?—Yes.

1623. (*Mr. Birch.*) Will you tell us what that exchange is?—It varies. It is fixed on the gold price of silver in the previous year. The rate this year is 1s. 7d., but it is fixed for the year that is coming at 1s. 5½d., the year beginning on the 1st of April next. It is fixed in January 1887 on the silver price of 1886.

1624. (*Mr. Courtney.*) The only point I wished to bring out is, that in your opinion the soldier in consequence of this legal contract is getting more daily pay than he formerly got?—As measured by rupees, he is. He is getting the twentieth part of a sovereign daily. If that sovereign is worth 12 rupees instead of 10, he gets the twentieth part of 12 rupees instead of the twentieth part of 10.

1625. (*Sir T. Farrer.*) And the Indian soldier does not get that?—The Indian soldier does not. In the pay of the native soldier there is no alteration.

1626. (*The Chairman.*) Could you give us the details of the increased expenditure in England?—In the railway revenue account, that is, in the payment of interest to the railway companies, including the annuities granted on the purchase of lines constructed by them and interest on the stock issued in exchange for portions of the annuity, there is an increase of 634,000*l.*

1627. Is that for guaranteed interest?—The payment of interest to the railway companies is the guaranteed interest; but in some cases the Government have bought the lines which were constructed by guaranteed companies, and now own these lines on condition of paying annuities to the former shareholders.

1628. Will you go on to the next item?—In the interest on the debt not charged against railways and irrigation works the increase is 303,000*l.*

1629. That implies an increase of the ordinary debt?—It is due to an increase of the ordinary debt.

1630. I thought you had been paying off that debt during the last 10 years?—Not the sterling debt. We have converted some into debt bearing a lower rate of interest, but on the whole I am afraid there is no reduction.

1631. The next item?—The charge for civil superannuation in England is increased by 338,000*l.*; and in other heads, except the army, the net increase is 11,000*l.*, while the army charges are less by 205,000*l.* than in 1876–7.

1632. To what is due the increase in the civil superannuation in England?—Partly to the fact that the civil officers not belonging to the covenanted civil service, who were engaged after the Government of India was taken over by the Crown, and when the country was being considerably developed, are now completing their service and coming on the pension list; but the greater part of the increase is caused by the Government having closed the civil funds and assumed their liabilities, and also by the covenanted civil servants, who used to draw their annuities in India, having, when the exchange began to fall, preferred to draw them in England. They had that option, and they have taken the gold payment instead.

1633. They had the option of drawing them in gold?—They received 1,000*l.* a year in gold, or what had been fixed as its equivalent in rupees in India.

1634. (*Mr. Fremantle.*) What was that equivalent?—10,666 rupees in Bengal, 10,650 rupees in Madras and Bombay.

1635. (*The Chairman.*) The army superannuation charges, I think, you stated were less by 205,000*l.*?—Yes.

1636. Considering that the army expenditure is generally largely increased, is not that rather a remarkable fact?—It is due in a great measure to the exceptional arrangement with regard to the non-effective charges. It used to be the practice for the Government of India to pay to the War Office every year the capitalised value of its share of the amount of non-effective charge that came on during the year, so that in any given year, 1880 we will say, they paid the capitalised value of the amount chargeable to India in respect of all the pensions of soldiers or officers who came on the pension list in that year. The payment in 1880, therefore, wiped off for ever the pension charge for India on that account, and, taken over a series of years, it was not an unfair arrangement. But the Treasury found that the arrangement for certain reasons did not suit them, and about two or three years ago they terminated that arrangement, and now we pay not the capitalised value, but the estimated proportionate value of the charges for each year. The result was that, in the first year in which that occurred, instead of paying perhaps 800,000*l.* for pensions, we only paid 80,000*l.* In the second year we shall pay, perhaps, 160,000*l.*, and after 10 years we shall be again paying our 800,000*l.* or more. But during these intermediate years there is a very considerable reduction under that head.

1637. But it is a purely nominal reduction?—It is a nominal reduction due to the fact that the charges for this year were paid some years ago.

1638. Quite so; it implies no economy in the home charges?—It implies no economy.

1639. What has been the average rate of exchange at which remittances have been effected during the last 10 years?—Remittances in 1876–7 were effected at approximately 1s. 8½d. the rupee.

1640. Supposing the sterling expenditure in England had remained unchanged during those 10 years that you have been dealing with, how much would the Indian taxpayer have been saved?—If the sterling expenditure in 1886–7 had been the same as in 1876–7, but the rate of exchange had fallen from 1s. 8½d. to 1s. 6d. the rupee, the charge for exchange would have been increased by about 2,157,000 tens of rupees. The actual increase has been 2,512,000; therefore 355,000 is due to the increase in sterling expenditure, and 2,157,000 to the exchange.

1641. (*Mr. Courtney.*) The 1,081,000*l.* sterling expenditure by which the net expenditure in England has increased, has caused an increase altogether in tens of rupees of 2,157,000 plus 355,00?—Yes, the increase of sterling expenditure coupled with the fall in exchange.

1642. (*The Chairman.*) Does this increase represent a real burden thrown upon the Indian Exchequer?—I must explain that the symbol for pounds sterling is used in the Indian accounts, but that the figures are really tens of rupees, with the exception of the explanation I was giving just now regarding the expenditure in England. The receipts and the expenditure in India are in tens of rupees. The payments in England are divided into two columns, one being the sterling and the other the addition for exchange. The aggregate of the two columns headed England and exchange is in tens of rupees; and the total is in tens of rupees, so that any increase in the number of rupees required to meet the payments in England is a real burden, whether it arises from a larger expenditure in sterling, or from an enhancement of the number of rupees required for remittance to defray a like amount of sterling expenditure.

1643. It represents a real burden upon the Indian Exchequer, but the figures do not represent exactly what that burden is?—No, the increase of the figures will represent the increase of the real burden, but the whole figure put down under exchange must not be considered as a loss.

1644. Could you give us any illustration of the extent to which the burden affects the Indian Exchequer?—The net expenditure in England in 1876–7 was 13,230,000*l.*; supposing that it had been

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fixed at that amount for the next 10 years, and that the rate of exchange had remained at 1s. 8½d., it would have cost the Government of India 15,483 lakhs of rupees to pay in England the sum of 132,300,000l. sterling in that period. At the rates which have actually prevailed, and taking the budget estimate of 1s. 6d. for this year, the remittance of 13,230,000l. annually would have required 16,309 lakhs, so that 826 lakhs of rupees, or nearly 83,000,000 rupees, of taxation has been levied during the decade on account of the fall in exchange, apart altogether from what may have been needed in consequence of an increase in the sterling requirements.

1645. You would regard that as a very serious addition to the taxation of any country, and especially serious in the case of a country like India which finds it extremely difficult to augment its taxation?—Exactly so.

1646. Besides the embarrassment and difficulty in which the Indian Government are thrown for this reason, what effect on the practical administration of the finances of the country has this uncertainty produced?—I think it is the uncertainty which is almost a greater evil than the actual charge, although the actual charge is very serious. But, owing to the uncertainty, it is almost impossible for the Government of India to form accurate estimates of the charge which has to be met from year to year.

1647. Would you give us an example of that?—Taking the two last years,—when the budget for 1885–6 was under consideration, it was necessary to fix a rate at which the remittances to England during the year should be estimated. In 1882–3 and 1883–4 the average drawing rate had been above 1s. 7½d., and in the year then closing it had slightly exceeded 1s. 7¼d. For the sake of prudence, however, it was taken at 1s. 7d., at which rate the amount needed to defray the net expenditure in England in 1885–6 was 1,788 lakhs of rupees. Exchange fell to an average of 1s. 6¼d., requiring for the same sterling expenditure 1,862 lakhs, so that the Government of India had to meet a charge of 74 lakhs (740,000 tens of rupees), entirely beyond their control, for which no provision had been made. Again, in framing the budget for 1886–7 exchange was estimated at 1s. 6d., at which rate the nett expenditure in England, which only exceeded the estimate of 1885–6 by 177,300l., would have required the remittance of 1,911 lakhs. Before the end of March, however, exchange fell below 1s. 6d., and with very little intermission it sank till it touched 1s. 4½d. in the beginning of August. The average rate up to the present time is about 1s. 5½d., at which rate, supposing that it should prove to be the average for the whole year, the same sterling expenditure would require 1,976 lakhs, or an excess of 65 lakhs (650,000 tens of rupees), for which provision has not been made.

1648. This condition of things has, of course, occupied the attention of the Indian Government for some time past. What remedies have been proposed for meeting it?—The first possible course for adoption, which has been under the consideration of the Government is, whether the revenue should be increased by imposing additional taxes; but, as I have already said, such a step is considered to be most impolitic, at the present time particularly. Secondly, there is the question of whether the expenditure shall be met by raising a loan; besides adding to the general indebtedness, and consequently to the future charges, that remedy would, if the money were borrowed in England, aggravate the evil by increasing the remittances in subsequent years. The third remedy is to reduce the expenditure; but I must point out that in that case the reduction, if it is to be at all large, can only be effected by suspending public works, which implies the arrest of the progress of works greatly needed for the various branches of the administration, or the provision of roads, or other material improvements; throwing out of work bodies of labourers who have been collected at considerable expense, and rendering idle the highly paid supervising establishment, so that much money would be wasted. The fourth possible

course is to suspend the operation of the famine insurance, that is to say, to take the revenue which is annually devoted to the redemption of debt incurred on account of famine, and to the prosecution of railways and canals designed to protect the country against famine, and to use that money in defraying the additional cost of making the remittances to England.

1649. We have already discussed to a certain extent the policy of the last course, but I understand your view to be that it would have the double evil of preventing that process of paying off the debt for famine which is now going on, and also of being something in the nature of a breach of faith with the people of India?—It is open to both these objections, although it would perhaps not be right to say that it is literally a breach of faith, because no exact promise has been given; but certainly the understanding was that the additional taxation, which was put on for the purpose of defraying the recurring charge for famine relief, was to be devoted to meeting the specific charge caused by the increase of famine expenditure.

1650. Is that understanding one that obtains merely in Government circles, or is it one to which the Government and the people are parties?—It is one which was not merely recognised by the Government, but very greatly pressed by the native members of the Legislative Council at different times when the question has been under consideration.

1651. And I suppose the fact that, as you have already explained to us, this land cess for famine purposes is rather an exceptional kind of tax, brought home to the people of India the fact that it is earmarked for this particular purpose?—Quite so. It is viewed to a great extent by them in that manner.

1652. And they would not tolerate what is practically an addition to the land tax for general purposes, except on the conditions which you have already stated?—It is very doubtful whether it would be accepted without great discontent.

1653. How has the uncertainty in the ratio which obtains between silver and gold affected the borrowing power of India?—As long as the ratio of value between gold and silver was stable, the Government of India was able annually to borrow in rupees the sums it required for the prosecution of public works, though, doubtless, a large part of the loans may have been subscribed by capitalists in England. When the fall occurred in the price of silver as measured in gold, and with it in the gold value of the rupee and of rupee securities, and the uncertainty of the future sterling value of such investments became apparent, the Government of India reported their inability to raise the requisite sums in India; and consequently in recent years recourse has been had to borrowing in sterling. It is evident that the burden of the interest on loans contracted in sterling continually increases as the exchange falls.

1654. Has that impediment to borrowing affected private enterprise in India as well as Government transactions? I understand that the English capitalist now entirely declines to lend to India, except under contract that he shall be paid the interest in gold?—As a rule that is so.

1655. Has that fact impeded the English capitalist lending to private enterprise in India?—I am afraid I can only speak from our experience with regard to local bodies, such as port trusts and municipalities. The port trusts at Calcutta and Bombay found themselves utterly unable to raise money, even with the Government guarantee, in rupee securities, and the Government were obliged to borrow the money themselves and advance it to them.

1656. I suppose that these local bodies would not have sufficient position in the English money market to borrow in London in sterling for themselves?—They could only do so at an enhanced rate, but I think that the Government would not permit them to borrow on their own account. It would be liable to so much conflict between the Government loans and the municipal loans, that I think it would probably not be thought right to permit them to come into the market

here. It would be preferable, if money was obliged to be raised here, that the Government should raise it at a cheaper rate and advance it to them.

1657. You would find it very inconvenient here to be competing in the sale of the bills with large Indian local bodies?—Yes.

1658. (*Mr. Barbour.*) And the Secretary of State refuses to allow the local bodies to borrow money themselves?—Yes, in England.

1659. (*Mr. Cohen.*) The Secretary of State has power to borrow in India without coming to Parliament; but if he borrows in London he must come to Parliament?—Yes, that is so.

1660. (*The Chairman.*) The result of that is that the debt of India has increased; in other words, that the central government have been obliged to borrow in order to lend in their turn to the municipalities?—Yes; I think I should have said the port trusts, because the loan raised last year was for them.

1661. How has the fall in the exchange affected the servants of the Government?—In many cases the furlough pay is issued to the servants of the Government in rupees converted at the rate of exchange annually fixed for the adjustment of transactions with the British Government, which is based on the mean cost of sending a remittance to and from India at the time that the rate is fixed; and, therefore, the lower the rate of exchange falls, the less is the sum which they receive as the equivalent of their pay in rupees. The pensions of civil officers, other than those in the covenanted civil service, are also paid in rupees in India, or, if drawn in England, are only convertible into sterling at the rate of exchange annually fixed in the manner I have just described. The family remittances which are authorised up to a limited amount to be sent through the Government are affected in the same manner. And all private remittances, including those of the accumulated savings of years passed in India, can only be brought to England at the price at which bills can be bought in the market. I may mention that the Government of India has recently forwarded memorials, of which 82 have been already received, from servants of the Government, praying to be allowed to make remittances at the rate of 2s. in the rupee.

1662. Is that rate the same as is adopted with regard to the payment of private soldiers?—It is not fixed on exactly the same principle. The Treasury fix the rate for the payment of a private soldier solely on the price of silver in London for the previous year. In this case it is a rate for payments of the Indian Government to the Treasury and by the Treasury to the Indian Government, and consequently it is based on the mean cost of sending a remittance to and from India, not only on the price of silver in London, therefore it is usually rather higher than the Treasury rate.

1663. The cost of transit is included in the estimate?—Yes; and the lower the exchange rate falls at which this furlough pay is to be issued, the less is the sum which the servants of the Government receive as the equivalent of their pay in rupees.

1664. Will you explain to us what is the distinction between a covenanted civil servant and another?—The “covenanted” civil servants are the civil servants who enter the service by public competition. They are appointed for the higher class of appointments, are paid at a much higher rate of salary, and have their pensions fixed in sterling. The “uncovenanted” servants, or the portion of the civil service which is not known as “covenanted,” is in principle appointed in India, although in some cases the Indian Government apply to the Secretary of State for officers, such as educational officers and engineers, but in principle they are officers appointed by the Government of India in India.

1665. Is it not a fact that whether these uncovenanted servants suffer a loss by the uncertainty of exchange depends really upon whether silver has fallen or on whether gold has risen? In other words, if silver has not fallen, the covenanted servants get a

great deal more than they bargained for; but the uncovenanted servants do not get less. If, on the other hand, silver has fallen, the uncovenanted servants do now, no doubt, get less than they anticipated?—I think I may give a general answer that that would be so.

1666. Have you any idea as to whether silver has fallen or gold risen in India?—So far as I can judge from prices in India, silver has not fallen. Prices calculated in silver have begun to fall quite lately; but till very recently I could detect no evidence of any change.

1667. Has not that fact a very important bearing upon the question as to whether this additional taxation, which is required to meet the fall in exchange, is a nominal or a real burden upon the people of India?—It has a very important bearing on the position of the people of India, as distinct from the position of the Government, if I may say so.

1668. The Government of India would be in a difficulty in raising the nominal amount of taxation, whether the real amount was raised at the same time, or whether it was not?—Yes.

1669. But supposing that silver has fallen in value, then, if they could get over the difficulty of raising the taxation, the burden on the people of India would not thereby be increased at all?—Quite so; if they could get over that difficulty. I only meant that there was that difficulty.

1670. But, if silver has, as a matter of fact, not risen but fallen, the burden thrown on the people of India, caused by what is called the loss by exchange, is not a nominal but a real loss?—Quite so.

1671. (*Sir T. Farrer.*) It is silver prices you are speaking of, not the value of silver, is it not? If the value of silver rises, silver prices fall?—I meant the silver prices.

1672. Silver prices having fallen in value, and silver having risen in value, aggravates the real burden on the people of India?—Yes.

1673. (*Mr. Birch.*) Would you say that a rupee, for instance, would buy more now in India than it did a short time ago?—Yes, to some small extent.

1674. (*Mr. Chamberlain.*) Therefore the rupee is worth more in India as a purchasing force than it was some time ago?—Than it was two or three years since.

1675. That is exactly the opposite of what one would have supposed from the alleged depreciation of silver?—No, that is not quite so. The fall in the gold price of commodities is so aggravated that it has more than overtaken the fall in the gold price of silver, but both have fallen.

1676. (*Mr. Courtney.*) Going back to the private soldier it would come to this, that he has a double advantage, one that he has more rupees given to him on the ground that the value of the rupee has fallen relatively to gold, and another that the rupee fetches more in the market?—Yes.

1677. (*Mr. Barbour.*) Prices greatly depend on the seasons, and this special fall may be due to good seasons in India during the last few years?—Yes, there have been very good seasons.

1678-9. (*Mr. Chamberlain.*) I understand you to say that there has been very little change?—I think, practically it may be said that there is no change, and that the purchasing power of the rupee in India is much the same as it was.

1680. (*The Chairman.*) But, if it has changed, it is a change in the direction of an increase, and not in the direction of a diminution?—Yes, in quite recent years.

1681. Can you put in a statement showing the amount of the remittances of the Government of India for payments on old or fixed contracts, and for payments on new or current contracts respectively?—I put in such a paper, with a note explaining the principle on which I have prepared it. (*See Appendix VIII. A.*)

1682. Have you any opinion as to the influence which the recent fall in the value of the rupee esti-

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mated in gold has had upon the export trade of India?—The average value of the exports of merchandise from India in the 10 years ending with 1855–6 was 18,184,000 tens of rupees; in the next decade it was 42,692,000 tens of rupees, an increase of 135 per cent.; in the 10 years ending with 1875–6 it was 54,151,000 tens of rupees, an increase of 27 per cent.; and in the last 10 years it has been 74,968,000 tens of rupees, an increase of 38 per cent. on the previous decade.

1683. There is no marked conformity between those figures and a theory which would make a fall in the exchange a great stimulating cause of export?—No, I could see none.

1684. (*Mr. Courtney.*) How are those valuations made?—They profess to be the real values. They are taken from the merchants' invoices, and to the best of the ability of the Government they are the real values. They have a legal power to check them, and do so as far as they can, but I have been in some cases testing them, and I find that the average value, deduced by dividing the values by the quantities, does not give the real value quoted in the markets; that may, however, be due to the fact that the average values are taken at all ports throughout the country, and that the value quoted in the prices current is the value at one particular port at the time of year to which they refer.

1685. But there has been no variation at all events in the method of valuation?—There has been no variation in the principle, but for the last 10 years more pains have been taken to render the valuations more accurate than before. Formerly they were frequently taken from tariff valuations, which were usually an under-estimate.

1686. (*Sir John Lubbock.*) Do your investigations lead you to think that the actual amount is smaller or larger than the estimated figures?—I think in the earlier years the tariff valuations, generally speaking, were under the real value.

1687. Then in point of fact the apparent increase is larger than the real increase?—I think so.

1688. (*Mr. Barbour.*) That would only be for the last 10 years?—It would only apply to the last group of years.

1689. (*The Chairman.*) But on the whole you think these figures may be trusted?—I see no reason for distrusting them generally.

1690. (*Sir T. Farrer.*) They are as good at any rate as our own in this country?—I think so.

1691. (*Sir John Lubbock.*) And you apply that opinion as well to 1855 as to the subsequent dates?—I apply the same opinion to all. But the Secretary of State in the year 1875 did call the attention of the Government to the importance of making these statistics accurate, and the Government of India promised and gave instructions to have special precautions taken, so that I think there is reason to suppose that the returns of the last 10 years are more accurate than those of former years.

1692. (*The Chairman.*) What in your view has been the principal cause of this increase?—In my opinion, the chief cause is the great development of the railway system in India, combined with the facilities afforded by the Suez Canal, and consequent reduction of freight. In illustration of that, I may mention that at the beginning of 1856 the number of miles of open railway was only 273; in 1866 it had increased to 3,569, that is by 1,207 per cent.; in 1876 it was 6,833, or 91 per cent. more than 10 years previously; and in 1886 it had risen to 12,376, or an increase of 81 per cent. on the open mileage of 1876. The railways, however, could not have facilitated the export of produce if there had not been surplus produce to export; and doubtless the abundant harvests of the last seven or eight years have greatly tended to the augmentation of the volume of trade.

1693. The fact, I suppose, that Indian exports are almost entirely of raw produce, and are bulky, and depend to a great extent upon seasons, rather supports

the contention that you have just laid before us?—I think so.

1694. There are persons, are there not, who hold that a fall in the exchange gives a permanent stimulus to the export trade?—Yes, that view has been advocated in India especially.

1695. You will probably be of opinion that, if the exchange remains steady, one particular ratio of exchange is no better for the exporter than another?—I think so.

1696. But there remains the question as to whether a change in the rate of exchange does temporarily, and while it is going on, afford a stimulus to the exporter. What is your opinion on that point?—I think that such a fall does give a momentary stimulus, and that a rise on the contrary would give a momentary check.

1697. Would you explain the mechanism of that, the exact mode in which a fall does stimulate export?—A merchant in this country who wishes to bring home produce, sees that his gold will buy more rupees, and he is led to hope, therefore, for a larger gold return. He consequently gives an order for the export of produce from India, and, if the bargain is made, as it frequently is, by telegraph at fixed rates, he perhaps does make a profit; but almost immediately it is found that, to meet the reduction of gold price which occurs through bringing home commodities to a large extent, some counterpoise is requisite. It may take place in the freight, or in prices in India, or in exchange. When it takes place in exchange, where there is a fall that just countervails the reduction of gold price, the stimulus passes away at once, and the trade will then be in the position in which it was before the fall took place.

1698. Then the mode in which the stimulus acts is by exciting the hopes of the English importer?—Yes.

1699. The merchant thinks that there will be a further fall, that what has happened in the past will happen in the future; he counts upon that, and he gives a larger order to the Indian producer than he otherwise would do. Is that your view?—I think so.

1700. But would the exporter in India not be quite as capable of making a forecast as the importer in England, and would he not discount the probability of that additional fall in exchange?—I think that, as soon as the fall in exchange has taken place, and the gold price has been reduced, the fall in exchange on the one side, and in the gold price on the other, the trade then assumes its former position. If a fall in gold price occurs, the trade would be stopped, without a reduction in the exchange. A reduction in exchange is necessary in order to enable the trade to go on, and so far the trade is momentarily stimulated; but I should rather describe it as the avoidance of a check in the trade, which would have occurred had the gold price fallen without a corresponding fall in exchange.

1701. By gold price do you mean gold price of silver or gold price of commodities?—I mean price of commodities. In my opinion a fall in exchange does not occur before a reduction of the gold price, but as a consequence of the reduction of the gold price, of commodities.

1702. (*Mr. Birch.*) It has something to do with the demand surely for the commodities?—The price has to do with the demand for the commodities, not the exchange, I think, except as a consequence.

1703. (*The Chairman.*) Your view of the nature of the stimulus given to trade is that it arises simply from the expectations of profit raised in the breast of the English importer. Is that so?—Yes; the trade which would ordinarily go on, owing to there being a large harvest in India, or a want of commodities here in England, would be checked but for this fall of exchange, and therefore the fall of exchange brings the stimulus to enable the trade to go on, and removes the check that otherwise would have occurred.

1704. Then what you rather mean is, that if the gold price of everything else fell, but the gold price

of silver did not fall, there would be a check to export?—Yes.

1705. Therefore the stimulus to trade of which you spoke simply amounts to this, that silver follows the course of other commodities in falling relatively to gold?—Yes, that is my meaning.

1706. And as that does happen, a dislocation of the market, which otherwise would occur, is avoided?—Yes.

1707. The true account therefore is that a check to the Indian export trade is avoided by the fact that silver follows the price of other commodities, not that a stimulus is given to it?—That is my view.

1708-9. (*Mr. Barbour.*) Over what period does your personal experience of the finances of India extend?—I have been Secretary of the Financial Department for eight years, but in my position in the India Office I have had frequent occasion to study the finances of India for years before that.

1710. And during that period I understand you to say that you have had practical experience of the embarrassment and loss caused to the Government of India by fluctuations in the gold value of the rupee?—Yes, constantly.

1711. And you think that the evil of fluctuations in the gold value of the rupee is one of great magnitude as affecting the finances of India?—Certainly.

1712. Do you think it would be good policy for the Government of India to submit, if necessary, to a considerable sacrifice, in order to get rid of future uncertainty regarding the gold value of the rupee?—Yes, I do. I think they would be glad to do so.

1713. Have you actually known instances in which the Government of India hesitated to undertake the construction of railways required for the protection of India against famine, owing to the financial embarrassment caused by a fall in the rate of exchange, and uncertainty regarding the future of silver?—Yes, the Government of India has been hindered in its policy of developing the system of famine railways, by the additional charge caused by the fall in the exchange.

1714. And is the policy of the Government of India in regard to these railways and public works generally frequently modified owing to the financial embarrassment arising from these causes?—Yes, and I might almost say it is more than modified; it is guided to a great extent by them. The budget has to be framed with the view to the possibility of such a fall occurring.

1715. If there was a fixed rate of exchange between gold and silver, would it not be possible for the Government of India to undertake the construction of more railways and canals than they can safely do now?—Yes.

1716. Than it could with prudence safely do now?—It is so, because it would then not have to fear the possibility of an extra charge occurring through a fall in exchange.

1717. And do you think that a large extension of public works in India would be beneficial to the people of India?—Yes.

1718. Would not a large extension of public works in India also provide an additional market for iron, steel, and railway material generally?—No doubt it would, for the construction of railways.

1719. And would it not extend the field for the profitable investment of capital?—Yes.

1720. Would it not consequently be beneficial both to England and India?—I should think so certainly.

1721. Are the advantages to be derived from these sources now limited by the instability in the relative value of gold and silver?—Yes.

1722. And I think you said that the same cause tends to prevent persons whose capital is in gold from investing money in India?—Yes, they will not lend money to the Government, if the return is to be in silver.

1723. Is it the case that the silver securities of the Government of India are now brought to England in less quantities than before?—Yes.

1724. And do you ascribe this result to an unwillingness of investors to hold silver securities?—Yes, it is so. Within the last three years it has been marked. I could go further, and say that there has been a transfer of rupee securities back from England to India last year to the extent of 110 lakhs.

1725. And formerly it was the other way?—It was the other way. From 1876-7 to 1882-3 about 200 lakhs were brought over on an average every year from India to England. In the years 1883-4 and 1884-5 it went the other way, but very slightly; and in 1885-6 more than a crore went back again.

1726. I think you said that the uncertainty regarding the future value of silver compels the Government of India to borrow in gold, although its revenue is payable in silver?—Yes, in the last two years.

1727. And do you think that the increase of the gold obligations of India is a great evil?—Certainly it is, in my opinion.

1728. And if a great war or famine were now to occur in India, would not the Government of India have to borrow still more largely in gold?—Yes; they could not possibly raise money in silver, as far as can be foreseen.

1729. And that would be an increase of the evil?—Just so.

1730. I believe the Government of India has recently undertaken to make reductions of expenditure?—Yes, a commission was appointed for the purpose.

1731. Is it the case that the bulk of this reduction, so far as you know, will fall on local or provincial governments?—I believe it will fall very largely, almost entirely, on them.

1732. And I think the money at the disposal of the local and provincial governments is entirely set apart for the purpose of the internal administration?—Yes, of the province to which it belongs.

1733. Can you say whether the reduction of expenditure will be wholly or mainly a reduction of expenditure that was unnecessary, or an expenditure that did not give an adequate return in one form or another?—I have no reason to think that it was not an expenditure that was most desirable, though perhaps not absolutely necessary, and the reduction would fall on very desirable expenditure.

1734. This reduction of expenditure will involve the construction of fewer roads and bridges and the establishment of fewer schools and courts of justice and hospitals, and will generally involve a check on the progress of the country?—Yes, generally. Especially I suppose it will occur in local public works.

1735. Is it your opinion that no such check would have been necessary if exchange had not fallen below 1s. 8d. per rupee, the rate taken in the estimates of 1882-3?—Yes, there would then have been sufficient surplus to render such a reduction unnecessary.

1736. It is generally said that a fall of 1d. in the rupee imposes on the Government of India an additional expenditure of 10,000,000 of rupees. Is that statement correct, speaking generally?—It is approximately correct. The lower the rate on which the fall is taken, the greater is the charge. A reduction from 1s. 6d. to 1s. 5d. would be more than 10,000,000 rupees. At 1s. 7d. it was 10,000,000 rupees.

1737. Have you seen a calculation that a fall in the exchange from 1s. 6d. to 1s. 5d. per rupee would have made a difference in the estimates of the current year of more than 11,000,000 of rupees, and do you consider that calculation correct?—Yes, I think so.

1738. Do you find it possible to forecast at the beginning of each year, or from time to time, the probable rate of exchange six months ahead?—No, certainly not.

1739. In the paper which you have placed before us you have put down the excess this year at 940,000 tens of rupees?—I had so put it when I prepared the memorandum, but I have had occasion to alter that recently.

1740. In your evidence I think you said 650,000

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tens of rupees?—Yes, or a difference of 290,000 tens of rupees.

1741. Why did you make that alteration?—At the time I drew up this paper, which was a few weeks ago, the average rate of exchange on the whole year had then been 1s. 5½d., but the higher rate at which the bills have been sold during the last month or two has made a difference of ¼d. per rupee on the exchange of the year.

1742. This occurred in a fortnight?—No, I find that the former calculation was made about the 8th of December, so that the improvement has occurred in eight weeks.

1743. A difference of 290,000 tens of rupees?—Yes.

1744. Do you find that the uncertainty caused by the inability to forecast the rate of exchange is a serious hindrance to any policy in India involving an expenditure of money?—Yes, very great.

1745. I think you said that the Government of India is in a peculiar position as regards taxation. Do you mean that, as a foreign Government, it has to exercise special caution in regard to the imposition of taxation?—Yes.

1746. The people of India are very conservative and suspicious in their ways?—Yes.

1747. And fluctuations in taxation in India are specially to be deprecated on this account?—I think so.

1748. Is not the Government of India also in a peculiar position regarding taxation, owing to the fact that it has to consult the wishes of two countries? For example, a form of taxation to which the people of India would not greatly object might be very strongly objected to in this country?—Yes, in the case of the import duties especially.

1749. Are not the finances of India specially liable to be upset by the periodical occurrence of droughts, and by the precarious nature of the opium revenue, which is derived from a tax on a drug consumed by a foreign people, and a drug which that people largely grow in their own country?—Yes.

1750. Does not drought seriously affect the land revenue, which is in many respects of the nature of rent, and does it not from time to time involve the expenditure of large sums in the relief of distress?—Yes, it does.

1751. And is not the state of affairs beyond the north-west frontier a cause of additional expenditure, and is not this a cause which may very likely lead to further expenditure from time to time?—I am afraid so; it certainly is such a cause.

1752. Looking, then, to the position of the Government of India as a foreign Government in India, and to the special and unavoidable causes of uncertainty which affect Indian finance, and to the great objections to change in the amount and form of Indian taxation, is it not specially important to remove any ground of uncertainty in the future which it is practicable to remove?—Yes, it is very desirable that it should be removed.

1753. You have said that the revenue from salt, stamps, excise, provincial rates, customs, and assessed taxes might perhaps be increased in case of absolute necessity?—In case of absolute necessity they might, perhaps.

1754. Are not complaints made at present that the existing rate of duty on salt prevents the poorer classes obtaining for themselves, and especially for their cattle, a sufficient supply of salt, and would not very great objections be raised to any proposal to increase the present duty?—Yes, that is so. In saying that those taxes *might* perhaps be raised, I wish particularly to guard myself against being understood to mean that it was desirable that they should be increased.

1755. With regard to stamps, are you aware that many people consider the duties too high at present, and that an agitation has more than once arisen for the reduction of what are called court fees?—Yes;

that applies to about two-thirds of the stamp revenue, I think.

1756. With regard to the excise, is it not the fact that the Government of India has never felt any hesitation about increasing the duties on drugs and spirits, that its policy has avowedly been to raise the maximum of revenue from this source consistent with not encouraging consumption; and is it not possible that any raising of the rate of excise duty might be followed by a decrease rather than an increase of revenue?—I believe that would be the case. There has been a very remarkable falling off in the consumption of excise liquors in some districts in Bombay lately, and it seems probable that there will be a very serious loss to the revenue in that presidency.

1757. And the rates of duty have been largely increased there?—The rates of duty have been gradually, but considerably, increased.

1758. Do not the provincial rates take the form of a cess on income from land?—Yes.

1759. And might not any increase of such cess for general instead of local purposes be fairly held to involve an alteration of the land settlements?—I think it would be open to that complaint, certainly.

1760. In speaking of the customs, I suppose you refer to the duties on imports?—In speaking of the possibility of raising them, I did. I do not take the export duty as being open to increase.

1761. Would there not be practically insuperable difficulties in the way of reimposing the import duties?—I think so.

1762. Is there not at present a duty on the export of rice?—Yes.

1763. And have not claims for its abolition been put forward more than once?—Yes; it has frequently been considered by the Government of India, and it is probably one of the first taxes that they would remove if they could do so.

1764. With regard to the assessed taxes, is not the present rate about 6d. in the pound on income?—Yes.

1765. And have not strong objections frequently been taken to this tax in India?—At various times there have been great objections taken.

1766. Have not the objections entertained to the income tax more than once led to its abolition?—Yes, it was abolished by Lord Northbrook, and at an earlier date also.

1767. And do you not think that any alteration of the duty, and especially any attempt to raise it, might provoke another agitation for its removal altogether?—It is very possible.

1768. I believe the Secretary of State issues gold securities, on which interest is payable in gold in London?—Yes.

1769. And the Government of India issues silver securities, the interest on which may be paid at the Bank of England by draft on India?—That is so.

1770. Both these securities, I believe, are dealt with in the London market?—Yes.

1771. Have you got any figures showing the price of these securities in the London market before the divergence in the relative value of gold and silver, and at the present day?—The price of 4 per cent. rupee paper in Calcutta was in 1873 105½, and last year 98. In London in 1873 the price of the rupee paper was 97½, and last year it varied from 74 to 65.

1772. The gold securities have not fallen so much, have they?—The 4 per cent. sterling stock varied in 1873 from 106 to 101, and in 1886 from 104 to 101½. The fall there was slight, and was due to the exceptional fact that they are liable to be paid off at par in 18 months from this time. In London the price of 4 per cent. rupee paper varied in 1873 between 98 and 93, and in 1886 between 74 and 65.

1773. (Mr. Courtney.) That just corresponds to the fall in the exchange?—As nearly as possible. I believe it is valued from day to day.

1774. (Sir John Lubbock.) The gold security, however, is not tempting, as it is to be paid off so soon?—I think the 4 per cent. stock is not

tempting, but the $3\frac{1}{2}$ per cent. has ranged in 1886 from 102 to 99, giving a mean of $100\frac{1}{2}$, which is very little under the value of the 4 per cent. stock 13 years ago. The gold credit of the Indian Government has clearly risen, I think.

1775. (*The Chairman.*) That loan at $3\frac{1}{2}$ per cent. is not payable off immediately?—No, not for 44 years.

1776. (*Mr. Barbour.*) It appears that the silver securities have fallen over 25 per cent. as compared with the gold securities?—From the maximum to the minimum is 33 per cent., I think.

1777. Before 1872 the persons who invested money in these securities had no reason to suppose that silver securities would fall more than gold securities?—No, I think not.

1778. And does it not appear to you very undesirable that the securities issued on the credit of the same Government, held by the people of the same empire, and dealt with in the London market, should be subject to such a great divergence in the relative value?—It would certainly be very desirable to avoid it.

1779. Bearing in mind the fact that originally there was no ground for supposing that there would be any considerable divergence in the relative value, do you not think that either the holders of silver securities have been very unlucky, or the holders of gold securities have been very fortunate?—Certainly one way or another a change has taken place.

1780. Are you of opinion that the currency arrangements of an empire in which this change occurs are in a satisfactory state?—No.

1781. I think you said that you do not think that the fall in the relative value of silver has specially stimulated Indian exports?—No, I do not think it has.

1782. Is it not the fact that, speaking roughly, India exports yearly about 85 crores worth of commodities, with which she purchases 55 crores worth of foreign commodities, 8 crores worth of silver, and about 22 crores worth of gold, the gold being partly imported into India, but mainly used to discharge India's gold liabilities?—Including the payments in gold; yes.

1783. That is how the 85 crores of rupees are dealt with?—The figures, I think, are an average import of 4,000,000. of gold and an average payment of 18,000,000. tens of rupees in respect of expenditure in England. That is about the same, 22 millions altogether.

1784. And in so far as India exchanges 55 crores worth of Indian commodities for 55 crores worth of foreign commodities, say wheat for piece goods, can you see how India derives any benefit from an alteration in the relative value of gold and silver?—No, not as regards that portion of the trade.

1785. If the fall in exchange translates the gold price of the wheat which she sells into a larger number of rupees, the very same cause and to the very same extent translates the gold price of the piece goods which she buys into a larger number of rupees, so that the gain exactly balances the loss?—I think so.

1786. And in so far as India purchases gold and silver with the commodities which she exports, the alteration in the relative value of silver and gold merely shows that, as compared with what was formerly the case, India is purchasing her gold relatively dearer and her silver relatively cheaper?—Yes, I think so.

1787. And, as a matter of fact, has not India now to give as much produce for silver as she formerly did, and has she not to give more produce for the gold which she requires?—Yes, that is so.

1788. Do you see any special gain to India in that state of affairs?—No, certainly not.

1789. I propose to ask you a few questions with regard to the system under which stores are supplied from England for the use of the Government of India. If the Government of India requires an article from

England, say a steam engine, I believe their custom is to order it through the Secretary of State?—Yes.

1790. And the Secretary of State purchases the steam engine, say for 500*l.*, and sends it to India?—Yes.

1791. And to obtain money to buy the steam engine the Secretary of State offers for sale in London bills payable in India in rupees?—Just so.

1792. And if a merchant wishes to trade with India he purchases these bills by paying sterling in London, and the amount the merchant will offer for the bill will depend on the quantity of Indian produce he can purchase with the resulting rupees in India, and the price in gold for which he can sell that produce in England?—Merchants take those two factors into their calculation.

1793. For example, a merchant will give 500*l.* for 6,000 rupees, if he finds that for 6,000 rupees he can purchase as much wheat in India as when sold in England will give him a sum of money sufficient to pay all incidental expenses, give him a reasonable profit, and replace the 500*l.* originally spent?—Yes, giving him a reasonable profit on his bargain.

1794. Freight and the rate of profit remaining the same, the number of pounds sterling the merchant will give in exchange for rupees depends entirely on the silver price of produce in India, and the gold price of the same produce in England?—Yes, that is a main element of the calculation. There is of course competition for the bills.

1795. But the number of pounds sterling which the merchant will give for rupees determines what is called the rate of exchange?—Yes.

1796. The rate of exchange between England and India depends on the comparative range of prices in the two countries?—The comparative range of prices and the demand for the bills at the time.

1797. I suppose the range of prices guides the demand?—No doubt it does.

1798. In the case I have supposed of India requiring a steam engine, the final result is that England gives a steam engine worth 500*l.*, in exchange for as much wheat as will fetch 500*l.* in the London market?—Yes, after paying the expenses, including the profit.

1799. And do you think that that is what occurs in all cases of trade between England and India?—I should suppose that that is the general rule in all cases. In some cases people do not make a profit even, but speaking generally it is the rule.

1800. Has your attention been called to the evidence given by Mr. Bagehot before the Parliamentary Committee on the Depreciation of Silver in 1876?—Yes.

1801. I wish to read to you what he says on that subject. In answer to Question 1368 he says: "I think the increase of the export of goods from India to this country will arise in this way; a merchant in London who is thinking of importing goods from the East, looks at the price current in Calcutta, and he sees the price quoted in rupees. The merchant in London is in possession of sovereigns in London, therefore he has two operations; first he has to buy his rupees in India, next with those rupees he has to buy the articles which he saw in the price current. The question of profit and loss to him is compounded of the result of those two operations. If therefore he can buy his rupees in Calcutta on more favourable terms, he will find it to his interest to go into a speculation which would not otherwise be profitable. If he can get rupees at 1*s.* 8*d.* instead of 2*s.*, and he can buy his goods in Calcutta with the same number of rupees, that is so much extra gain to him. Conversely, the English exporter of goods to the East will receive payment in rupees, and he will have to sell those rupees; and, if he sells them for a less amount of sovereigns, he will suffer a loss, and that is a discouragement to exporting from this country to India. The result of these two operations, of the encouragement of exports from India to this country, and the dis-

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"courage of exports from hence to India, necessarily is an increase of the balance which this country has to pay to India, and consequently a flow of silver to the East." I wish to ask you if it does not appear to you that Mr. Bagehot omitted to consider that simultaneously with the fall in the rate of exchange there might be a fall in the gold price of Indian commodities?—Yes, I think that was not present to his mind at the time.

1802. That in fact he could not determine the profit on the transaction until he had sold the produce in the English market for gold?—Yes.

1803. And if the gold price of commodities fell simultaneously with the fall in exchange and to the same extent, the gain which the merchant made from getting a larger number of rupees for his gold would be exactly balanced by the less amount of gold he would get for Indian produce in London?—I think he overlooked the fact that it might be so.

1804. Have you, as a matter of fact, noticed that the rate of exchange depends very much on the range of gold prices in the London market?—I think that it goes very much with that.

1805. I think you said that the rate of exchange depends on the comparative range of prices in the Indian and English markets of articles interchanged between the two countries?—Yes.

1806. But in recent years the English gold prices appear to have varied more than the Indian silver prices?—Certainly that has been so.

1807. And is there not a striking correspondence between the range of gold prices of wholesale commodities in England and the fluctuations in the rate of exchange?—Yes, I have noticed that there is.

1808. And do you from your experience in the past draw the conclusion that under present circumstances the rate of exchange between gold and silver will very much depend on the gold price of articles interchanged between the gold and silver countries?—I think so.

1809. You have had experience of the silver standard in India, and the gold standard in England, since 1873; is it your opinion that, in so far as regards the important question of stability of standard, the silver standard has been a better standard than the gold standard during that period?—That is my opinion.

1810. You base that opinion on the fact that Indian prices generally, apart from special fluctuations caused by famine, appear to have kept nearer the same level than gold prices have done?—Yes.

1811. And in so far as silver has been a more stable standard than gold since 1873, are you of opinion that to that extent the Indian manufacturer and the Indian producer and the Indian debtor have had an advantage as compared with the manufacturer, producer, and debtor in England, and all other countries with a gold standard?—I think so. I think that the great progress of industry in India in recent years is to a great extent due to that. Perhaps I may be allowed to put in some tables which I have brought relating to the prices and trade. They have not been prepared by myself, but by the Statistical Reporter in the India office. One set of papers relates to the prices, the other consists of the tables of trade and coinage, &c., which were presented to the Select Committee in 1876, and which have been brought up to date. I do not know whether the Commission have had such returns put before them.

1812. (Mr. Birch.) I think it is rather an unfortunate way of putting it to say that, to meet the larger amount of sterling payments, a larger amount of silver rupees have to be sent to England and sold for gold. It is quite true you qualify it by saying that in practice this is effected by the sale in London of bills on India payable in rupees. One could quite understand that circumstances might arise by which it might be literally true, because, unless produce could be shipped from India and could be grown profitably, the Government having contracted loans in this

country would absolutely have to send precious metals to pay those debts, and therefore it would be utter ruin to India supposing she had to send silver rupees over to this country, because it would be denuding her of all currency?—In the case you are putting, if she could not send commodities she would have nothing to send.

1813. She could send silver rupees, besides a quantity of gold?—The practical effect is exactly the same. She sends to England the commodities, with which she buys the rupees which the merchant would require to send to India for the produce, and which the Government would then have to send back to this country.

1814. In all questions of exchanges it must be remembered that the exchange is always an element of the merchant's business. He calculates what is his freight, his insurance, and his exchanges, and the basis of everything is the exchange, particularly in India. If he wants to buy a certain article, if he sells his wheat and can get 20 rupees over in India instead of getting 16½ rupees, of course he has got 3½ rupees more, and it assists materially the development of the country?—Yes, but if the 20 rupees do not buy more than the 16½ might before, he does not make a greater profit.

1815. But you have told us he did. More than that, you said the rupee bought more than it formerly did, in India?—But I am speaking of the gold which he can buy.

1816. I am speaking of what he gets in India to buy with, and you say that a rupee can purchase more than it could before; consequently he has 20 rupees to purchase with instead of 16½, as he had before, and he is better off?—He, the individual cultivator, may be, but he is a unit of the people of India, whose gold payments may have been enhanced to a corresponding extent.

1817. You must bear in mind India is not the only country that sends produce to this country. I find that of the 69,000,000 quarters of wheat that came to this country India only contributes 12,000,000, or 17 per cent.; consequently you have to compete with all those countries which send over wheat to this country, and therefore, if you are getting more rupees over there for the sovereign for which you sold your wheat here, it would be beneficial to the people there?—But can you use the rupees in the end for more commodities? I think not.

1818. But you have told us just now that you could?—Only in India.

1819. Well, we are talking of India, and where formerly you could buy 1,000*l.* worth you can now buy 1,250*l.*?—Yes, but then I must give the answer that I gave before. I do not dispute that the individual cultivator may be better off, if he has nothing to pay for but the cotton that he wears and the rice that he eats; but as a country India has not gained any advantage, because her greater number of rupees will not pay more of her gold debts than before.

1820. As a gold debtor India is in exactly the same position as other countries which have contracted debts in England. All these countries come into competition with the corn which comes from India to this country?—I can only say that the fall in the rate of exchange has not benefited the country.

1821. Then you referred to the discontent about taxation. Surely the people of India would feel more inconvenience if the exchange was suddenly to rise. Now you say it is 1*s.* 6*d.* Supposing it was to rise to 1*s.* 10*d.*, all the produce that they hold in this country or send over to this country would lead to a very heavy loss, because you must bear in mind that the merchant does not always trade at a profit?—Yes, I presume that, if some sudden rise from 1*s.* 6*d.* to 1*s.* 10*d.* occurred, certain people would suffer.

1822. Supposing India can now sell her corn in this country only at a small profit, and supposing the price remained as at present and she got less rupees sent back, it would be a bad business for her?—But then

I take it that the gold price for which she could sell her wheat would rise also.

1823. Why should it rise? If there are 69 against 12 why should it rise, why should it vary?—I should enter into the question of bimetallism if I answered that.

1824. We import 69,000,000 cwts. of wheat, of which India only sends 12,000,000?—Yes.

1825. Why should the fact of the exchange varying immediately make that go up in its price?—I think that, if the exchange were to rise to the extent you speak of, it would be because the gold price of commodities had risen.

1826. I do not quite follow what you said in your evidence as to a fall in the exchange giving a momentary stimulus, and a rise a momentary check, to the export trade. A man may hold a large stock of corn in India, and when he sees a variation in exchange he says, "I would rather hold it for a month with the expectation of the exchange improving." And then, as the time comes when he is obliged either to send his documents to England or pay there, he has to send it forward, and that would cause the effect that you mention without any very marked difference with India or any other country?—I spoke of it as appearing to me, from the figures and diagrams which I have prepared, that the effect quickly passes away. It appeared to me that they showed that there was no real benefit to the people. The first diagram is one of the total value of exports, with a parallel line of the increase of the railway mileage, and a cross line showing the fluctuation of the rupee. It appears to me that the line of increase of exports is in correspondence with the increase of the mileage, and not with the fall in the value of the rupee. For some years after 1873 exchange was fairly steady, and the amount of exports increased by more than one third.

1827. But you have mixed all the exports up. The exports to England are alone affected by the exchange, but not the exports to China and other silver using countries. In silver you will find that the proportion to England is considerably reduced. I was quite surprised to find that India sent such an amount of produce to other countries, not to England?—Perhaps you will allow me to put in this diagram, with the principal articles of produce and the increased quantity and value compared with the fall of the rupee to total exports, and another set of tables which I have prepared of the exports to Europe only. Except in the years 1885 and 1886 I could see no material variation, and even in those years it was only in one or two cases that there was any particular correspondence with the fall in exchange. I do not think it at all depends on it.

1828. (*Mr. Fremantle.*) Have you one for the exports to the United Kingdom only?—I have taken Europe, because a good deal of the trade that formerly came to England and went on to the continent now goes direct to the continent. I have therefore included the whole of the European trade.

1829. (*Sir John Lubbock.*) Could you give us a similar table showing the trade to the gold currency countries and the silver currency countries, because that would be affected by the question?—I will prepare a similar set of tables for the silver currency countries. Practically trade with Europe now may be compared with trade with England in former years.

1830. (*Mr. Fremantle.*) Some of those countries are silver using countries?—Yes, if you can now call any countries in Europe silver-using. I do not think you can.

1831. (*Mr. Birch.*) You talked about the charge for interest having been reduced by 1,679,000*l.* I did not hear exactly what your reply in regard to that was. What did you refer to?—The debt is divided into two portions. The portion which is chargeable to the railway and irrigation revenue account represents the money laid out directly by the State in constructing railways and irrigation works, and the rest of the debt is the ordinary debt, and it is the latter on which the charge for interest has been reduced by 1,679,000*l.*

But I explained to the Commission that it must not be supposed that debt has been paid off to that extent. The theory is that, had the Government not constructed its public works, it could have paid off debt. It has had surplus revenue to pay off debt to that extent, and therefore, in dividing the debt into two parts, one due to railways and irrigation works, and the other to other causes, the effect is the same as if the government had paid off ordinary debt and borrowed a like amount for railway and irrigation works.

1832. You say there has been an increase of 634,000*l.* in the payment of interest to railway companies, including the annuities granted on the purchase of lines constructed by them, and interest on the stock issued in exchange for portions of these annuities, and that there has been a decrease in the charge for interest on the ordinary debt of 1,679,000*l.* An increase in the one and a decrease in the other. I suppose that is the way you have of keeping it in your accounts?—The debt chargeable to the railway revenue account is transferred from the one head to the other. The object of what seems a complicated arrangement is that a true account may be given of the financial result of the railways, which you could not get unless you charged against them the interest on their portion of the debt.

1833. You said that less securities come from India to England than formerly. Is that a disadvantage?—What I should like to see would be that the natives interested themselves in the securities and held them. I think that it would be better for India if we could get them to hold the securities.

1834. (*Mr. Barbour.*) Do the securities that go back to India pass into the hands of natives there?—No, I think they are only held for the sake of drawing the interest in India. They may be sold, we do not know. All we know is that people prefer to receive their interest in India rather than in England.

1835. Is it the fact that only a comparatively small proportion of the silver debt in India is held by natives there?—That is so. Only one-fourth I think.

1836. (*Mr. Birch.*) When one hears that the rupee debt is going back to India, the inference from that is that the inhabitants of India are interesting themselves in the debt, and if so, is it not so much the better?—I think it rather is that the exchange banks prefer to hold their securities in that country to a certain extent.

1837. So far as the imports and exports balance themselves, the question of exchange does not matter. The one pays for the other. It is the balance that matters?—Yes.

1838. (*Mr. Chamberlain.*) I understand that you consider that the fall in exchange is a great injury to the Government of India, and the people that it represents, but that it does not materially affect traders with India?—That is my view.

1839. Or producers in India?—I think that perhaps to some extent it is of advantage to the producers as distinguished from the taxpayers. In so far as they are producers, I think they may get an advantage by the greater number of rupees which they receive for their produce, but as taxpayers the tax-paying community, I should say, has to pay more taxes for its gold disbursements, and, taking the country as a whole, I think there is no advantage.

1840. But the producers in India would not receive a greater number of rupees, would they? The purchasing value of the rupee in India having practically remained the same, they would receive, *cæteris paribus*, the same number of rupees for the same amount of produce that they have done?—Quite so.

1841. Therefore if they benefit at all it is only by natural advantages, or the railways, or similar things, which are independent of the fall or fluctuation in exchange?—Yes.

1842. But, as far as your opinion goes, neither the producers in India, nor the purchasers of Indian produce, nor the exporters of European goods to India, nor the Indian purchasers of European imports, are

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materially affected by the fall in exchange?—No, I think not in the long run at all.

1843. Then there is only one other class of people who are affected, and those are the employes in the civil administration; but they are beneficially affected, I think?—They are paid in rupees at the old rate; but in so far as they have to remit their savings to England, or, when they come on furlough, to draw their furlough pay in England, or when they take their pensions, if the pensions are payable in rupees, they are injured by the fall in exchange. If the pensions are payable in sterling, they receive the same sterling amount as before, and therefore I think are benefited.

1844. But the soldiers?—The soldiers are benefited, that is, the British soldiers.

1845. (*Mr. Barbour.*) That does not include the officers?—That does not include the officers; it is only the private soldiers.

1846. (*Chairman.*) You stated to me, I think, that, if the change in the relative value of gold and silver is entirely due to the appreciation of gold, none of the pensioners of the Indian Government were injured, and those who receive in gold are greatly benefited?—I do not think that they are injured, but they think themselves injured; they feel it as an injury.

1847. (*Mr. Barbour.*) Even if gold is appreciated, is it not a fact that many charges and payments depend on custom rather than upon the market value of gold. Consequently they would not gain in that respect?—In India?

1848. No, in England?—Yes, I was going to qualify my reply to the Chairman to that extent; for instance, I may take the very common case of the servant of Government educating his children at home. He has to pay probably the same gold price as before, his salary in India remaining as it was. He has to remit a larger portion of that salary in order to educate his family.

1849. (*Sir T. Farrer.*) That is to say that gold has not appreciated altogether, but in connexion with certain commodities?—Yes, all gold prices have not fallen.

1850. (*Mr. Chamberlain.*) Turning to my previous question, I want to understand whether it is the fact that there is any serious grievance with regard to the employés?—I am in a little difficulty how to answer that, because I think that, in so far as they are drawing silver rates of pension or furlough allowance in this country, they are suffering to the extent of certain charges which have not altered with the gold price.

1851. Yes, but that limits the grievance to a small class, and only with reference to a portion of their income?—Yes, it is limited.

1852. It is not a serious grievance, which if it stood alone would demand an extraordinary remedy?—No, I think not.

1853. Therefore we come to this, that in your opinion the one ground for interference is the case of the Government of India?—It is the main ground, I think.

1854. Their grievance, as I understand, applies wholly to the old payments, all ancient contracts. That is to say, to the payment of interest upon sterling loans, to superannuation, and similar charges?—It applies to such, but it would apply also to a contract made to-day for sterling payments.

1855. It applies to the ancient contracts, certainly?—Yes.

1856. Does it apply to a new contract?—It applies to any contract made in gold, I should say.

1857. Suppose the Government of India borrows 100*l.* in gold. Let us assume for convenience that they pay 5 per cent. interest, then they would have to find 6*l.* in tens of rupees in order to pay that 5*l.* interest, but would they not receive 120*l.* in tens of rupees as the capital sum borrowed for the 100*l.* in gold?—You are quite right.

1858. If that is so, the interest, that is to say, the burden upon the people of India is only 5 per cent.

upon the sum which they receive?—So long as the exchange has not fallen again.

1859. If there is a further fall that would be an injury, but the mere fact that the exchange now is lower than it was 20 years ago does not increase the burden upon a new loan?—No, a new loan made at the moment is no more onerous at the same rate of interest than it was before the fall, till there is a further fall. I have a table showing the effect of the fall in exchange on the rate of interest on the recent contracts made by the Secretary of State with railway companies. The Southern Mahratta Railway contract was made, I think, in the year 1882 at 4 per cent. The Government instead of receiving 4,000*l.* received 48,000 rupees. That contract was made at 1*s.* 8*d.* It has now to pay 4·44 per cent. on that same amount of capital, owing to the fall in exchange in the last four years from 1*s.* 8*d.* to 1*s.* 6*d.*

1860. Then I gather from what you have said that the total loss to the Government of India could only be ascertained by noticing the fall in exchange since each loan has been contracted?—Yes.

1861. But it is not to be measured by the total difference between the normal rate of exchange which I suppose is 1*s.* 8*d.* and the present rate 1*s.* 5*d.*?—Yes. I do not know what you can say is the normal rate of exchange, but you cannot measure the loss by any particular rate. It must be taken on the rate prevailing when the loan was contracted.

1862. You could only get it by a careful examination of all the details of the loans?—Quite so.

1863. When you say roughly that each 1*d.* of difference in the exchange is equal to 1,000,000*l.*, it would not be safe to take that as the sole factor in calculating the loss to the Government of India?—That has nothing to do with the capital borrowing, but is the addition to the exchange on the total disbursements, and it is on the remittance of about 14,000,000*l.* sterling that a fall of 1*d.* would make a difference of the amount that Mr. Barbour mentioned, 10,000,000 rupees.

1864. Assume that 1*s.* 8*d.* is the normal rate, and that the present rate is 1*s.* 5*d.*, then roughly it might be said that the difference being 3*d.* is equivalent to 3,000,000*l.* a year?—Yes, 3,000,000 tens of rupees.

1865. But that is not the real loss to the Government of India. It has to be reduced upon the recent loans which may have been contracted at a time when the exchange was less than 1*s.* 8*d.*?—I think that that saving was taken into consideration in making the calculation; 10,000,000 was the additional number of rupees that were required for the remittance of the amount then due. If you add to that remittance by raising a fresh loan on which interest is required, it is true that the charge will not be increased in the same ratio, but there will be no gain. The 10,000,000 rupees is the loss on the then existing obligations.

1866. Then you have not estimated, I suppose, what the total gain would have been, assuming that the exchange had never been altered?—The table I put in showing the division between the old and the new contracts would, I think, approximately answer your question. It shows how much additional charge is incurred under former contracts, and how much under the contracts of the last two years, in which fresh loans have been raised.

1867. Then I understand you to agree with Mr. Barbour that the Indian Government had been prevented from carrying out further railways and similar works by this difficulty of the exchange?—Yes.

1868. I do not understand that. Have you any idea of what proportion of the expenditure of a railway is made in India, and what proportion out of India?—I think that before the Select Committee upon Indian Railways the proportion was given as one-third in England, and two-thirds in India.

1869. The expenditure in India is not affected by the exchange at all?—No.

1870. Therefore the only difficulty is with regard to the expenditure in England?—Yes.

1871. And as regards the expenditure in England, India has to find more silver for its gold?—Yes.

1872. But does it not get more goods for the gold in proportion?—Yes, I agree in the questions you are putting to me, but that was not the point.

1873. In that case the same amount of silver will produce the same amount as before of engines and rails. Although more silver has to be given for gold, more silver has not to be given for goods which India actually requires for making a railway?—Yes.

1874. Then how is the Indian Government damaged by the fall in exchange, and prevented from making these railways?—Because it has no surplus revenue to devote to the making of the railways.

1875. It is prevented by this loss of which we have been speaking, say 3,000,000*l.* a year, which practically reduces its available income?—Yes, and of which, as I before mentioned, 1,500,000*l.* was set aside exclusively for such works as these famine railways, or for diminishing the debt caused by constructing public works in India.

1876. If, therefore, that 3,000,000*l.*, the past loss in exchange, could be filled up in any way, there is nothing now which should prevent the Government from carrying forward its public works as fast as it would otherwise have thought desirable?—No; it would be in a very favourable position, owing to the cheapness of the materials.

1877. (*The Chairman.*) Inasmuch as it had to use borrowed money for the purpose?—And also if it constructed lines with borrowed money.

1878. (*Mr. Cohen.*) You have just said that the expenditure of India in the making of railways is not affected as regards that expenditure disbursed in India. Would that be the case if the Indian Government were obliged to borrow? Would it not be the case that they would be piling up obligations in England in sterling, which is a very dangerous thing in the face of the uncertainty of the rupee?—Certainly. My answer to Mr. Chamberlain was given with reference especially to the famine railways constructed from revenue. I was not then speaking of railways constructed from borrowed money.

1879. But in so far as expenditure even in India is supplied by funds borrowed in England the same objection applies as before, that it is an increase of sterling obligations?—

(*Mr. Chamberlain.*) But only if there is a further fall in the exchange? If you could assume that the exchange had reached its lowest, it would not matter as far as borrowed money goes?—No; if you have a stable ratio between gold and silver, it then does not matter.

1880. (*Mr. Cohen.*) Or even without a stable ratio; provided that they arrive at a point at which there is no further fall, then, the capital which you receive now being in proportion, it would not matter; but it is the fear of a further fall which renders the Indian Government timid in piling up their obligations in this country, and therefore prevents them developing their public works in India?—Yes.

1881. (*Mr. Houldsworth.*) If there was a rise, there would be a benefit?—If there was a rise there would be, but the very fact of increasing gold obligations, and consequently the remittance home, tends to prevent a rise.

1882. (*Mr. Cohen.*) You said civil servants have only to complain in respect of a limited portion of their income, and only a limited portion of the servants. Are you giving your opinion or their opinion?—My opinion, certainly. It does not agree with theirs.

1883. They do not accept your view, I think?—No, and I must add that there is a very great appearance of hardship. It is a point that admits of great argument as to how far a silver income does go now in England.

1884. Independently of the question as regards the Government of India, do you think that business has been hampered in the country itself by the uncertainty

of the exchange? Within the last four or five years do you think business has been hampered, and people have been afraid to engage in ventures on account of the uncertain value of the rupee?—In regard to the foreign trade, yes.

1885. Have you any idea that the continuous fall in silver has engendered any distrust in the native mind?—I have seen it stated, but I do not know that there is any foundation for it, excepting the tendency of such people to hoard, rather than to invest in Government securities with the risk of their falling in value.

1886. Do you think this fall has increased the tendency to hoard gold, which we have had in evidence?—No, I do not see any such inference to be drawn from the figures. In times of luxury the people will take gold and hoard it; but I think the hoarding in recent years, which has unquestionably taken place, is more due to the prosperous state of the people from good harvests than to any distrust of silver.

1887. The hoarding goes on to a greater extent in gold than silver, or less, do you consider?—I notice that, whenever the people are in a flourishing state and able to take it, they will take gold as a rule. I have a table in which I have endeavoured to calculate what the absorption of gold and silver into India has been, and in the last five years it has been 23,000,000 tens of rupees in each metal, including in the silver the coined silver, a great deal of which is for hoarding. Perhaps I had better put that table in.

1888. You gave some evidence about the divergence in value of Indian securities payable in silver as compared with Indian securities payable in gold?—Yes.

1889. But you must be aware that in any Indian securities payable in gold or silver, *inter se*, there must be considerable divergence in value according as they are more or less current?—Undoubtedly.

1890. The rupee securities have not the advantages at the Bank of England which the sterling securities of the Government of India have in the nature of facilities of transfer, and so forth?—No, they have not.

1891. When you allude to the divergence of price between gold and silver, I think it well to call your attention to the fact that there are other elements besides the respective currency in which the debt stands which may affect the figures which you have put in?—Yes.

1892. Such as their marketability, and the mode of transfer, and so on?—That, undoubtedly, is the case; but in those respects there has been no alteration in recent years. The point with reference to which I put in that table was to show that the gold securities, whatever they are affected by, are not affected by the fall of exchange, while the silver securities are.

1893. Are you aware of any means by which the Indian Government could stimulate the desire of the people of India to invest in Indian securities? Could not that be done through increased postal facilities?—That point is continually before us at the India office, and in the Post Office savings banks considerable amounts are now invested. I do not know that anything more can be done, except to leave it to the progress of time for the people to learn to do so.

1894. Independently of all questions of currency and the consequent possibility of increased loss to the Indian Government, do they not consider it undesirable as being a foreign country to borrow so much money in England. If this question of currency were removed, that question would exist still?—No doubt it would. Unless the comparative cheapness of borrowing in England is a sufficient set-off against the objections, it is desirable that the debt should be as much as possible a native debt and not a foreign debt.

1895. But, holding out the idea that, if this currency difficulty were removed, you could develop public works, it would not be well to ignore the question that there must be a limit to the foreign debt that a country can pile up abroad?—Certainly, I am no advocate for adding to the foreign debt more than is necessary.

Mr.
H. Waterfield,
C.B.

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C.B.

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1896. Have you any idea whether the natives in India would accustom themselves to a gold currency? —There is little or no gold now current there, and I

cannot think that it is at all suitable for the wants of the people.

The witness withdrew.

Adjourned till Tuesday, February 8th.

Ninth Day.

Tuesday, 8th February 1887.

PRESENT :

THE RIGHT HON. A. J. BALFOUR, M.P., the CHAIRMAN, presiding.

MR. D. M. BARBOUR.
MR. J. W. BIRCH.
MR. J. CHAMBERLAIN, M.P.
MR. L. L. COHEN, M.P.
MR. L. COURTNEY, M.P.

SIR T. H. FARRER, Bart.
MR. C. W. FREMANTLE, C.B.
MR. W. H. HOULDSWORTH, M.P.
SIR JOHN LUBBOCK, Bart., M.P.

MR. GEO. H. MURRAY, *Secretary*.

MR. JOHN KENWORTHY BYTHELL examined.

Mr.
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1897. (*The Chairman.*) You are a Manchester merchant, are you not, engaged largely in the Eastern trade?—Yes. Our head office is in Manchester, and our head office in India is in Bombay, and we have also a dozen branches up country, under the control of our Bombay house for cotton buying.

1898. Will you explain the general character of the business you carry on?—Our business is principally exporting cotton to the continent of Europe and to England. A large portion of the Indian crop is used on the continent of Europe; but we also do some business in shipping Manchester goods to India, although not so much as formerly.

1899. You export raw cotton from India to Europe, and you import into India, from Manchester, manufactured cotton goods?—Yes; but cotton exporting is our principal business.

1900. Could you describe the financial machinery by which that trade is carried on?—The export trade is mainly financed by the exporters selling bills in India to what we call the Exchange Banks, banks who lay down rupees in India by buying Council drafts or merchants' bills in London, or buying silver, as the case may be. We sell our bills in India to them drawn in sterling, payable in England, or in francs payable in Paris, and we get rupees for them in India.

1901. And with those rupees you pay the grower?—We pay for the cotton. That is the way the export is principally financed.

1902. Now, how is the import trade carried on?—I should say first of all, with regard to the export trade, that there are a few merchants who buy the Secretary of State's drafts in India, but only to a very limited extent. I fancy it will be found that nearly all those drafts are bought by the banks, and with the money which is laid down the banks buy the exporters' bills in India. The import trade is principally financed either by the exporters of goods from England selling bills in London drawn in rupees, for which they receive sterling at an exchange fixed at the time of sale, or by their buying bills in India from the banks, giving their rupees there and getting bills payable in London in sterling. Certain Eastern bank managers have told me that the proportion drawn from London is increasing largely.

1903. Are any of these transactions long dated transactions of the kind that would be influenced or modified by an alteration in exchange between the time they were entered into and the time that they were finally completed?—Well, nearly all the business now, either exporting produce from India, or Manchester goods at any rate to India, is on the principle of simultaneous operations.

1904. Is that what are called telegraphic transfers?

—No, I mean the business transactions, the sales of produce or goods. A man makes an offer or he gets an offer for a certain amount of produce or for goods, and he tries to close the transaction as nearly as possible simultaneously. For example, an exporter of produce from India may sell a cargo or a certain fixed quantity to be shipped, say two, three, four, or five months ahead. Simultaneously he generally contracts in India for the produce in rupees, he sells his bill to the bank, fixes the exchange bill to be delivered when the produce is shipped, and he engages his freight. You see there are three operations necessary in order to fix the sterling price, and he tries to fix the whole three, the price in rupees, the rate of exchange, and the rate of freight, for a small margin simultaneously.

1905. This is rather a complicated matter for people not familiar with the details of business. I think it would put it in a very clear light before us if we were to take a concrete example, say your firm buying a certain number of cotton bales in India, and going through the stages of the operations you would undertake in order to bring that home to England, and get your profit out of it. Could you do that off hand?—Oh, yes, at once, but I should like just to impress upon the Commission first of all that nearly all of the business now, since telegraphic communication was so perfect, is done simultaneously. There is very little produce shipped, I believe, from India for sale, on what you might call speculation, as merchants' speculation, and there are very few Manchester goods, I think, shipped to India in that way. Business is nearly all done either in execution of offers made, or through the exporter making offers in the currency of the country in which he sells. For instance, if we sell 1,000 bales of cotton to a man in England that will be at so much per pound delivered in England. Well, we do not sell that unless at the time we can contract for the cotton in India at a price fixed in rupees, sell our bills on England at an exchange which the bank for the time being will then fix for bills to be delivered when the produce is ready, and engage our freight, so that if we can close those three operations in India of course we have fixed our price in sterling, and if we get the price fixed per pound simultaneously from our buyer in Europe our transaction is closed, provided all parties to the contract fulfil it,—provided we have no failure.

1906. In other words, you so conduct your business operations that if all the contracts entered into are fulfilled, your profit is certain from the beginning. There is no margin of doubt or speculation in it?—Well, a great deal of the business is done in that way.

We do it as far as we can, of course, but practically most people in the produce trade are always buying in India and trying to sell simultaneously as far as possible, so as to have as little stock in their hands as possible.

1907. Does not that simply transfer from your shoulders to those of the buyer in England the possibility of speculative loss or gain?—Well, that forward principle runs through the whole business now. For instance, I believe that in most cases if a spinner buys cotton from us, he sells his yarn simultaneously for forward delivery, and I believe in most cases if a manufacturer buys his yarn he sells his cloth, and I believe that simultaneously also the buyer of the cloth sells it in India or China, as the case may be, at a price fixed, and he fixes the exchange in that transaction also. The business of the world is done more and more every day in that manner of the eventual buyer of the manufactured article taking the risk, and he may possibly sell it to small customers in the same way.

1908. But still, as a considerable time must necessarily elapse between the commencement of the transaction, namely, your buying the raw cotton from the Indian grower and the final process by which that is sold as manufactured Manchester goods in the Eastern market, and as during that time there may be great alteration in exchanges and the relative value of gold and silver, on somebody or other, however far you may try to put it off, must fall the speculative possibility of loss or gain. Is that not so?—I do not think so, because the banks who buy the one class of bill and sell the other put one transaction against the other and keep themselves covered from day to day as nearly as possible, I believe. For instance, I believe if some bank manager here who had branches in the East had telegrams to-day that his managers at his branches had bought bills for forward delivery against produce to a very large extent, he would practically cover himself almost immediately in some shape or form here. He would either buy Council drafts from Government or he would buy silver, or he would buy from day to day bills drawn from here against shipments to India.

1909. (*Mr. Birch.*) That is, the base of the whole is on a fixed exchange?—On a fixed exchange. Of course I am only inferring what Eastern bankers' business is. I believe you would find that the exchange banks with their head offices in London and their branches in the East scarcely speculate at all. They put the imports against the exports; and the silver and the Government Council drafts, bills drawn by the Secretary of State for India, virtually finance the balance.

1910. (*The Chairman.*) And practically you are of opinion that however long a transaction may be before it reaches completion no drop, however sudden, in the exchange can really impose either loss or gain upon any of the parties concerned?—On those closed transactions I believe that if any party runs any risk he does it as a speculation. He does not need to do it.

1911. No body need do it?—He need not run any risk. Of course there is some shipping of produce for a rise because a merchant thinks well of it, and I dare say there is some shipment of Manchester goods to the East in which people deliberately take the risk, but the great bulk of the shipments homewards and outwards are closed transactions, and if a man chooses to speculate in exchange, rupee prices, or the freight, he does so because he prefers it, not because he need do it.

1912. Then the Indian Government really are the only debtors who appear to suffer by the oscillations in the exchange? They are the only people who are unable to guard themselves?—They and the holders of silver have to take that risk between them, I think.

1913. I suppose that you might divide, for the purposes of argument, the causes which may affect trade in consequence of the oscillation in the relative

value of gold and silver, firstly, into those which result from the uncertainty in the exchanges which you have already disposed of, and, secondly, those which result from the fact that silver is permanently cheaper or largely cheaper than gold. Those would be the two principal ones. You are of opinion, at all events, that the mere oscillation in the exchange produces no inconvenience?—Practically very little. There is some inconvenience, of course. If you have a rapid rise or fall it puts a stop to business temporarily, until, of course, there is some adjustment of prices to make up for the difference. Now, perhaps, I might give you a case in point in this last great rise to show what I mean. You know that last year there was a fall which culminated in August. The rupee went down about 2*d.* roughly speaking, from 1*s.* 6*d.* to 1*s.* 4*d.* Well, produce in India rose 12 or 13 per cent. in price, as the price of silver fell, because all we exporters who were willing to work for a small margin were prepared, so long as we could get the same sterling price, to pay more rupees. After August we had, of course, a rapid rise in exchange, and then we were in this position. As the exchange in a very short time rose 12 per cent., we had either to get more money here for our produce or we had to pay fewer rupees for it there, the rates of freight having practically remained with very little fluctuation. Well, the practical result of that rise is that the sellers of cotton in India have had to give way 12 per cent., or nearly so, in their prices, because we have not had a very large fluctuation in the prices of cotton measured in gold. In some cases they have not only had to give way to the full extent of the 12 or 14 per cent. rise in exchange to compensate for that rise, but, through other influences, they have had to give way very much in prices besides. For instance, what we call Bengal cotton, cotton grown in Central and Northern India, happens to be an exceptionally large crop this year, and as the consumption of that short staple of cotton is to a certain extent limited in Europe, and very large quantities of it have been offered for sale for shipment during any month the buyer chose to name, almost, the price of that cotton has gone down something like $\frac{1}{2}$ *d.* to $\frac{5}{8}$ *d.* per pound in Europe.

1914. What per-centage would that be roughly?—About 16 per cent. in the gold price, and 12 or 14 per cent. in the rupee price besides, to make up for the exchange. There is an instance of how things have had to adjust themselves. Sellers of that produce have not only had to take a lower price, lower by 12 or 15 or 16 per cent., consequent on the fall in value of that cotton in Europe in consequence of the increased supply, but have had to take 12 or 14 per cent. less on the European price to compensate for exchange.

1915. (*Mr. Chamberlain.*) But, as I understand, the price of the produce had gone up previously to August?—In India it had, in rupees. Since then the sterling price has fallen.

1915*a.* Therefore on both occasions there was almost an immediate readjustment?—An immediate readjustment of price in rupees to compensate for the fall or the rise in exchange.

1916. (*The Chairman.*) An alteration in the price of cotton you have just described to us is due to two causes; one of them is the familiar one of supply and demand, which we may neglect, and the other is the exchange. What I want to know is whether the rapid alteration in the value of cotton in India, due to the exchange, is or is not pernicious to the trade? It rose rapidly before August in consequence of one alteration in the exchange, it fell rapidly after August in consequence of another alteration in the exchange. Is not that a great inconvenience to the grower in India, and the exporter from India?—Well, of course, to the grower fluctuations are to that extent unpleasant. To the exporter it practically makes no difference. We have only to wait a little till prices adjust themselves. When we are out of season prices do not adjust themselves so quickly. The supplies are so small that

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holders hold on to their cotton, and adjustment takes a long time. In the season these fluctuations in exchange are adjusted in the rupee price very quickly indeed.

1917. (*Mr. Birch.*) They vary with the demand?—They vary with the demand. As soon as the exporters find that they cannot pay the rupee price without losing money, they stop buying and the prices adjust themselves.

1918. (*The Chairman.*) You simply work the machine by which the cotton is transferred from the grower in India to the buyer in England?—Certainly.

1919. You have just explained that the machine is practically so perfect that you receive no violent shock from even the most violent oscillations in exchange. What I want to know is whether these violent oscillations in exchange do not do harm to the grower, to the man who is not part of the mere machinery of transfer, but the man who actually produces the goods?—Well, of course, if the price of silver rises rapidly the grower does not like it. If we have a fall in silver, and we are able to offer him 10 or 15 per cent. more for his produce, he likes it very much.

1920. (*Mr. Courtney.*) Do you deal direct with the grower?—In some of the districts. We have now 12 branch buying establishments (in the Deccan, in Guzerat and Kattiawar, and Tuticorin), and we get as nearly as possible to the grower on the one side and the consumer on the other, because it is the only way in these telegraphic days in which a middle man can make a margin.

1921. (*The Chairman.*) You have no opinion yourself as to the effect upon the grower of the uncertainty which he must have as to what his produce will sell for after he has grown it?—Well, those very rapid fluctuations are, of course, not of frequent occurrence. We have had one or two years perhaps in which we have had these rapid changes of 12 or 15 per cent., but, as a rule, the falls and rises are not so great, and although the grower does not like a rise in exchange because he does not like to have to take a lower price for his produce, still, on the whole, as the tendency has been downwards, I am distinctly of opinion that the fall of silver has benefited the grower in India and improved his position immensely.

1922. (*Mr. Birch.*) But the fluctuations might be produced by other reasons as well as exchange. A very large importation here of wheat and other articles would affect him just the same?—The gold prices I hold are mainly a question of supply and demand, and of course fluctuations in these prices he feels incidentally just as we feel them here, because we who have to sell in gold offer more or less according to the price we can get here. The whole thing is worked by telegram, and the most minute fluctuations are telegraphed, and we act accordingly.

1923. (*Mr. Fremantle.*) And, therefore, with all the parties concerned it is more a question of calculation than a question of loss?—A question simply of calculation.

1924. (*The Chairman.*) The people to whom it is a question of calculation are the people who work the machinery of exchange. I take it that the grower of cotton can make no calculation?—No, he does not calculate any more than the grower of wheat here calculates what the price will be in the autumn when his crop is planted, unless he chooses to sell for forward delivery.

1925. (*Mr. Birch.*) He has nothing to do with exchange?—Nothing at all.

1926. (*The Chairman.*) But he suffers severely if the exchange reduces the price of his produce after it is grown?—He does, but as the tendency of the exchange is downwards he has been getting better prices relatively to gold during the last 12 or 15 years than he did before. As the fall in silver of late years has been so rapid he has received somewhat better prices on the average.

1927. Then the manufacturer in England, does he suffer from these oscillations due to the fluctuations in exchange?—Well there of course you have the

exact reverse operation. If the exchange falls as it did in summer, prior to the month of August, then, of course, the exporters of Manchester goods have practically to stop operations, until they can adjust prices, and the adjustment last summer was practically a rise in this special instance in rupee prices rather than a fall in sterling prices. I think, speaking off-hand, although I do not do the buying of our own grey goods in Manchester, that the prices of unmanufactured goods, during the four or five months when exchange fell 12 or 15 per cent., remained pretty steady in Manchester, and from that, of course, it is clear that as business went on more largely than ever, either all or the bulk of the fall in silver was compensated for by an advance in rupee prices in India.

1928. It is in your power, directly you see that operations are not going to yield a profit, to stop operations?—Certainly.

1929. It is not in the power, of the grower on the one hand or the manufacturer on the other to alter his proceedings according as prices rise and fall. Does not that produce considerable friction and loss to the trade?—Well, of course, a manufacturer does not stop working, but I believe I am correct in saying that the great bulk of the manufacturers in Lancashire now sell goods for forward delivery just as we sell our cotton for forward delivery. Our cotton is sold to them, and for the time being covers them against sales that they make of their yarns or goods, and as a general rule, at any rate of late years, unless there has been a long cessation of demand, manufacturers do not work for stock in Lancashire, I think.

1930. Well, then, I may take it that you do not consider the uncertainty of exchange any evil at all to those who, like yourself, work the machinery of exchange, and only an insignificant evil to the grower and the manufacturer?—Of course, it does render the business more difficult, but I do not look upon it as any great evil myself.

1931. It is an evil, but not a great evil?—A very small evil, a thing that can be very easily got over.

1932. Have you any doubt, leaving the question of the uncertainty of the exchange, as to the effect which has been produced on the export trade of India by an apparently permanent fall in the relative value of silver and gold?—Well, I entirely disagree with the views taken in Mr. O'Connor's minute, in which he argues that the fall in silver or the fall in exchange, put it which way you like, has practically done nothing to stimulate the export trade of India.

1933. You are of opinion, then, that it has done something to stimulate the export trade of India?—I believe that the greater portion of the drop in the gold prices of produce is owing to increased production, opening of new sources of supply, reduced cost of transit by land and sea, the opening of the Suez Canal, and reduced cost of handling generally, and the abolition of so many middle men, and the very cheap work done in consequence of telegraphic communication by the remaining middle men. I believe all these causes have had a very great influence also in developing India's export trade, but at the same time I do hold very strongly indeed that the fall in silver, and the consequent fall in exchange, has been a very great benefit to the Indian producer, and has largely helped to develop the export trade.

1934. Is it the process of fall, or the difference between the value after the fall, which has produced this good effect?—I think that what you might call the permanent fact that more rupees as compared with gold are paid for the produce helps to develop the trade.

1935. It is not the downward course of the exchange that has done the good, but the effect of the fall?—The fall as a whole.

1936. And as a permanent factor in trade?—Yes.

1937. Then do you think that is a permanent benefit to the Indian producer? Do you think that the fact that silver is worth roughly speaking 1s. 6d., instead of roughly speaking 2s., is a benefit to all

time for the Indian producer?—Well, of course in time, as prices adjust themselves to the lower value of the rupee, the benefit might not be so great, but I think, taking it as a general rule, that a plentiful currency is of advantage to a country.

1938. Perhaps it would be convenient to the Commission if you were to explain exactly the mode in which you think the Indian producer has been benefited by this permanent fall in the value of silver?—Mr. O'Connor, I think, puts it down—I take his calculations because, no doubt, he has made them very carefully—that the prices in gold have, since the date he gives, which, I think, is 1873, fallen roughly 30 per cent.

1939. In England?—The gold value, say of Indian produce, has fallen 30 per cent., whereas the silver value has only fallen 10 per cent., the other 20 per cent. being a difference in exchange, and the fact, of course, that the fall to the ryot has been lessened to the extent of 20 per cent., has, so far, been of very great advantage to him, and has saved the country from great depression of trade.

1940. Would you explain in detail how that fact benefits the ryot?—Well, he gets prices for his produce which are 20 per cent. better than he would have had if silver had not fallen while the gold values had fallen.

1941. He does not get a better price in silver than he did before?—The prices of silver in India for articles not exported have not altered materially. We may assume that they have remained the same. The prices of export articles have altered. The fall is about 10 per cent., I may say, whereas they would have fallen probably 30 per cent. presuming that the silver value of gold had remained stationary, while the gold price of commodities had fallen 30 per cent.

1942. If we confine ourselves for the moment to the price that the ryot gets in silver in India, so far from benefiting by recent changes in value he loses by 10 per cent.?—Always providing that commodities would not have fallen in the gold value if silver had not fallen, but I believe that commodities, as compared with the gold value, would have fallen if silver had not fallen. I do not believe that the great bulk of the fall is due to appreciation of gold. I believe it has something to do with it; but I believe that the greatly increased production of many articles, especially by America and India, the immense expansion of railways in those countries, the cheapening of all transit both by land and sea enormously, and the very cheap working by all middle men, the abolition of so many middle men, and the fact that the telegraph dispenses with stocks to a greater extent than formerly—I believe all these causes would have brought about a fall in the value of commodities measured in gold even if you had not had this change in the value of silver.

1943. I quite understand your view, but I want to get out exactly the benefit which you think accrues to the ryot from the fall in the value of silver compared with gold. Confining our attention to the ryot and the price that he gets in silver in India, your view is that he gets 10 per cent. less than he used to get, but, if it had not been for the fall in exchange, he would have got 30 per cent. less?—I won't say 30, but a good deal less. I do not think the appreciation of gold has caused 30 per cent. fall in the value of commodities.

1944. So that it would not be true to say that the ryot has been benefited. He has been saved from a loss; he is not better off than he was, but he is not so badly off as he would have been?—He has been saved from a loss certainly—that is perhaps the best way of putting it. Perhaps you would just allow me to say, with reference to this, that I have a statement showing what the increase in supply of several articles is as between 1873 and 1885, the periods dealt with by Mr. O'Connor. I see that in wheat the increase in supply has been 22 per cent.

1945. (Mr. Barbour.) Is that from India?—No, the increased production of the world so far as ascer-

tained, the available production I suppose it must be. It is from the Statistical Society's Journal, Mr. Sauerbeck's statement:—Sugar 68 per cent., tea 44 per cent., iron 39 per cent., copper 97 per cent., cotton 32 per cent., and wool 20 per cent. I think we might take it as an established fact that if you increase immensely the supply of articles by opening up new fields of cultivation or new mines, as the case may be, the price, as measured in gold, must as a matter of course fall immensely also, and the fact that silver fell at the same time saved the ryot in India from a great deal of loss with respect to the produce which he cultivates for export.

1946. (The Chairman.) Then your view with regard to gold is that it has appreciated relatively to the number of transactions of which it is the medium?—Yes; but the articles which have fallen so much are just the articles which have been produced in what almost looks like, for the time being, excess of quantity.

1947. I want to get at the root of this matter of the benefit to the Indian producer. He gets 10 per cent. less in silver. Does that complete the transaction so far as he is concerned, or is the export stimulated, are more people desiring to buy his produce than formerly? I want to know how it is exactly that you think that the Indian export trade has been stimulated by this permanent fall in the relative value of gold and silver?—By the fact that the fall in silver makes the price 20 per cent. better to him than if silver had not fallen. Rupees are to a great extent as valuable to him as ever, and as the fall in silver enables exporters to offer him a much higher price I think it stimulates production for export.

1948. (Mr. Chamberlain.) As I understand, the producer in silver using countries has benefited to the extent of 20 per cent., whereas gold using countries have lost that?—Yes, that the fall of silver has saved him from 20 per cent. of the fall which is felt by countries which use gold currencies solely.

1949. (Mr. Birch.) That is to say, that he would get fewer rupees than he gets now?—If silver had not fallen he would be getting 20 per cent. fewer rupees always, presuming that the gold prices had fallen as much as they have done in the meantime.

1950. (The Chairman.) The best way to put it is that the producers of the world have suffered heavily in countries which use gold from the fact that their currency has appreciated. Those countries which are fortunate enough to use silver, and whose currency has not appreciated, have not suffered?—The great saving in the cost of transit, and the fact that the middle men absorb so much less of the production have had a great deal to do with the fall in prices. I think that the appreciation of gold is only one factor. I think that the immense saving in the cost of transit is another. I have one or two figures which I will give you afterwards to show what the immense saving is. I think that has had a great deal to do with prices as well as the appreciation of gold.

1951. The only cause that we are concerned with at the present time is the appreciation or depreciation of the precious metals. What I want to get at is your view of what has occurred to the producer in consequence of that appreciation; and, as far as I understand you, the producer in gold using countries suffers heavily, through the fact that the currency in which he deals has appreciated 30 per cent. The producer in silver using countries has not suffered more than 10 per cent., because the currency which he uses has only appreciated 10 per cent.?—Yes.

1952. Then, is your view that there is an immense advantage to the consumer in the gold using countries through the improvement of machinery of transit, and other analogous causes?—Yes, to the consumer and to the producer. I suppose the argument is that the consumer virtually settles the price, but of course it must be a great advantage to the producers also if the cost of transit and the charge of the middle men are immensely reduced, as they have been.

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1953. Has the Indian consumer gained his full share of that?—I consider that the consumer in all countries has gained it. I suppose it is divided between the consumer and the producer. The manufactured goods or produce, as the case may be, are now transferred from country to country by one middle man, where you had half a dozen employed before, and that one middle man works more cheaply than ever he did before, and the cost of transit is reduced by an enormous proportion. On cheap goods like wheat, iron, and things of that sort, the per-centage of reduction on the cost of transit is enormous.

1954. Has the Indian producer got more than his fair share of that, owing to the relative value of gold and silver?—He has been relatively better off, through having a depreciated currency.

1955. (*Mr. Birch.*) A depreciated currency, but not depreciated there?—Not depreciated there.

1956. (*Mr. Fremantle.*) And through facilities for getting his goods to the market?—Yes.

1957. (*The Chairman.*) We are all agreed that the wealth of the world has been increased by these improvements in the machinery, but I understand your view to be that besides that general gain to the whole world the Indian producer has gained relatively to all other producers, owing to the fact that he lived in a country in which the currency had not depreciated more than 10 per cent.?—Yes, I think that has been a distinct advantage to him, as compared with the producers in gold using countries.

1958. And how long do you think that it is likely to go on? Indefinitely?—Of course that is a very difficult question. The process of adjustment has been so long hitherto that one would be inclined to think that it would take a very long time.

1959. The way in which the producer has been benefited, as I understand it, is by the increased demand for his goods, in other words, the export trade of India has been stimulated?—It has been stimulated.

1960. That would increase the money debt of other countries to India?—Yes.

1961. And that is a process that must go on indefinitely; the money debt of other countries to India must go on increasing?—Yes.

1962. Would not that result in a rapid flow of bullion from those other countries to India?—Of course it will result in an increased flow of bullion, only as you know there is an increasing amount of the balances to be adjusted by these Government of India remittances to England.

1963. But still there ought to be an accumulating debt from other countries to India if there is to be this permanent bonus to the Indian exporter?—Only up to the present time India has taken a great portion of that accumulating debt in railway plant and in borrowing money in Europe to develop her resources.

1964. But, looking at the thing broadly, is it not the case that any premium upon the export industry of a country must increase and rapidly increase the debts in bullion which other countries owe it?—Yes, certainly it must do.

1965. And what effect would that ultimately have?—That would increase prices in the exporting country. I admit that the tendency, of course, must be for the value of all commodities, wages, and everything else in India to adjust itself to the change in the value of the rupee, but the process is very slow, and in the meantime I think India is deriving great benefit from the stimulus which this fall in the exchange is giving to her exports.

1966. (*Mr. Houldsworth.*) Would you anticipate a reverse effect if silver rose?—I think if anything were done to bring silver up again to the old price, 15½ to 1, it would injure India immensely for a long time to come, check her export trade, and cause great depression there.

1967. (*The Chairman.*) Do you think that the present price of silver, 1s. 6d., will have a permanent influence on the Indian exporter for an indefinite period?—I would not like to fix the period, but certainly it will for a long period.

1968. But for a period, the end of which we need not contemplate?—Yes, I think so.

1969. And you also think that the result of the export trade of a country being stimulated is to promote the flow of bullion into that country?—That is so, but only to a moderate extent. I think it will also stimulate the flow of manufactures, that as India gets so many rupees for her produce, and the people become better off, she will be a better buyer for her manufacturers, and that view of the case is borne out by the fact that last year with the lower exchange India has been taking more of our cotton manufactures than ever. As a matter of fact, during the last year as compared with the previous three or four years the increase in imports has been remarkably great.

1970. (*Mr. Birch.*) Like every other country she would only receive the balance in metal?—The balance in metal, but she is taking an increased balance in goods at the present time.

1971. (*The Chairman.*) Then a fall in exchange does not increase exports alone but imports also?—Yes.

1972. What is the limit to this advantage which India is to enjoy? If the rupee could be reduced by artificial means to 1s., what would be the result?—It is very difficult, of course, to follow that out, and personally I do not believe the rupee will go to 1s. I think America will take action to prevent anything of the kind. She is the producer of silver, and the agricultural interest of America is very strongly impressed with the belief that the fall in silver is helping exports from the East in opposition to her agricultural exports, and I do not think, myself, we shall see any great further drop in silver.

1973. But if your process were carried to its logical conclusion, and the rupee sank to a purely nominal value, then the imports and exports of India would, for an indefinite period, be artificially stimulated?—Oh yes, I quite agree with you that if it is pushed to its logical conclusion in that way it would be so, and therefore there is that weakness in the argument. Still, at the same time, I do feel, from what I have seen myself and my own experience of the country, that the fall of 20 per cent. in the silver has been an immense advantage to the country, and I should be very sorry to see anything done to resuscitate silver to that extent.

1974. Still, you are not confident yourself of the particular explanation which you give of the benefit which India derives?—I am confident of the benefit which she has derived, but I cannot off-hand, as it were, work out what the exact position would be if we did push the thing to the conclusion referred to, and suppose silver went down to nothing.

1975. (*Mr. Birch.*) Would not the effect of a very large fall in silver lead to the closing of poorer mines, and therefore would not the fall be arrested?—Yes, I was going to follow up with some remarks of that kind as to the effect of the fall of silver, but Mr. Balfour said that was not his argument. He said, supposing we did go on and silver went to nothing.

1976. Supposing silver and the rupee kept the same value, would not the effect be that they would continue to get more rupees?—Yes.

1977. That would be the result, only, if it went from 1s. 6d. to 1s., they would get more rupees than they get now?—Yes.

1978. (*Mr. Fremantle.*) But, as a matter of fact, there must be a point at which the fall of silver must be arrested?—That is my own belief. I believe we are not to see a much further fall, and when we fell to 1s. 4d. in the summer—I am not much engaged in the exporting trade from Manchester myself, but men who are in that trade were continually asking my opinion, and I gave it very strongly that we should have a very rapid reaction, for the reason I have stated and others which I need not refer to.

1979. (*The Chairman.*) I was not suggesting that silver was going to fall; I was only pointing out that, if your argument was sound, the nearer silver did approach to nothing the greater would be the benefit

to the Indian exporter and importer. As that seemed to be an extravagant conclusion I thought there must be some flaw in the logical process by which it was arrived at?—There is. As a general rule protection produces prosperity for the time being. It may bring other evils in its train, but while I am not able for the moment to work out that theory, I still feel myself, as I have already said, that we shall not see a very much further fall in silver, and that any attempt to bring silver up to the old ratio of $15\frac{1}{2}$ to 1 would be a great injury to India.

1980. I think you expressed the opinion just now that a plentiful currency was an advantage to a country?—I think there is no doubt about it.

1981. And, therefore, the world which has been using gold has suffered from the fact that its currency has appreciated by about 30 per cent.?—Well, of course, when you talk of the appreciation of the currency by 30 per cent., that further question comes in of whether the cheaper production has not had more to do with the fall in prices than the scarcity. I think it has. The stock of gold in the world is not used up as cotton, wheat, and produce are. There is an accumulating stock, and I am not convinced in my own mind yet, from anything I have read or seen, that the stock of gold and the production of gold together are so small as to cause a fall of 30 per cent. I think a greater portion of the fall has been caused by the causes to which I have referred.

1982. And you think that that makes a material difference in the conclusions that we should draw from the fall of gold?—I think so.

1983. The fact that a currency is appreciated through the increase of commodities?—Not only the increase, but the fact that produce is carried about more cheaply, and produced more cheaply; and that a very much smaller proportion of the price is retained by carriers and middle men. That is one way of putting it.

1984. But if those advantages could have been attained without prices falling—in other words, if there had been gold discoveries at the same time which would have kept up the price of commodities, in spite of the causes to which you have called attention—that would have been a still better state of things for the world, I suppose?—Well, that is a point on which I have myself some difficulty in making up my mind. There is no doubt of the fact that to the great bulk of the workpeople the fall in the value of commodities seems so far to have been a very good thing.

1985. But if that is so in England it would be also so in India, and India would have been better off than she is now if her rupee circulation had fallen 30 per cent. instead of only 10 per cent.?—Well, of course the value of the rupee for internal purposes has not changed very much, she is merely getting so much more for her exports.

1986. But the same rule applies to India as to England. If it is a benefit to England to have an appreciated currency, it must be equally a benefit to India to have an appreciated currency?—Yes, I think I might say so. Just at the moment I do not feel that my idea is very clear on the complicated question as regards our own English currency. Still, as a general rule, I wish to say that I do think that an increased production of gold would give a certain measure of increased prosperity to the gold using countries.

1987. (*Mr. Barbour.*) You do not think that a 30 per cent. fall in prices in England can be a good thing, and that it is also a good thing for India to have been saved 20 per cent. of that fall?—Not to all producers in England; here of course a fall is not a good thing. Of course I should like, before I am cross-examined on a point like this, to work out where the exact loss falls. In England, the circumstances are quite different from India, and just at the moment I do not feel myself competent to go into the question.

1988. (*Mr. Chamberlain.*) Is not this an element,

that the advantage to India arises from the fact that prices have not fallen on the goods that are for export?—Precisely; that is what I say. Articles for consumption are much the same. It is chiefly in the articles for export that India has the advantage.

1989. That may be an advantage to India, although for a country generally a general appreciation of the currency would not be a good thing?—Yes, I agree with that.

1990. (*The Chairman.*) You are aware of the financial difficulties which the Government of India allege that they suffer from?—Before I go into that would you allow me just to draw attention to one or two things in the paper of Mr. O'Connor. I suppose it will be before the Commission. I will make no general reference to it, but I might just refer to one or two statements. He makes a great point of one or two things there to which I have referred.

1991. Are you of the opinion that the fact of the export trade of India having remained almost stationary during the three years 1883-4, 1884-5, and 1885-6, although there was a very heavy fall in exchange during that period, proves that falling exchange does not stimulate exports?—First of all, sir, I should like to say that the trade has only remained stationary in values. As prices fell during those years, quantities, of course, must have increased on the average, or the declared values of the exports would have decreased. And I should wish to draw attention to one thing particularly, and that is this. Mr. O'Connor makes a great point in that minute of cotton having fallen off in quantity about 15 per cent. in 1884-5 and 17 per cent. in 1885-6, during which years we had a fall in exchange. Now I wish to draw the special attention of the Commission to the fact that that falling off was owing to the crop sown in the autumn of 1884, reaped in the spring of 1885, having to a great extent turned out a failure, and that crop reaped in the spring of 1885 affected the exports of the two years in question, 1884-5 and 1885-6. Up to December 1884 the crop was looking well in almost every district. Then there was a failure of the dew in Guzerat and Kattiawar, and nearly one-third of the crop was destroyed, consequently it was quite natural that during those two particular years the export should fall off. The damage was mostly on the Bombay side; and whereas I find that during the three previous years to 1885 the average receipts at Bombay were about 1,800,000 bales, the receipts in 1885 were 1,135,000 bales, and that affected the export of the two years in question. But the next year the crops were fairly good all round, and the receipts the very next year, that is to say, the year ending 31st December last, came up to a fair average, between 1,600,000 and 1,700,000 bales. And then I wish also to point out, as he makes a special point of the decreased export of cotton, in regard to cotton for local consumption in India, that it has increased enormously. It is estimated that in Bombay now one-third of all our receipts, that is to say, 600,000 or 700,000 bales, are consumed by the local mills. Just to show what that means, I may state that in the year ending 31st December 1887 Bombay exported to China and Japan 28,600 bales of yarn of 400 lbs., and in the year ending December last, 1886, Bombay exported 219,950 bales; so that, of course, if you are continually using up a very much larger quantity of the cotton, and exporting the yarn, you cannot be exporting the cotton also.

1992. In fact, you mean that the exports cease to take the form of raw products, and take the form of the manufactured article to a certain extent?—That accounts for some of it, but Mr. O'Connor wishes to make a great point of the fact that simply for these two years there was a falling off in the quantity of cotton, about 15 per cent. in 1884-5, and 17 per cent. in 1885-6, and that this was during the year that exchange fell the most. We had still lower exchange last year, and as we had no failure of the crops in Guzerat and Kattiawar, we had our normal export of cotton again from India. And I wish to point out, sir, that this year's experience—I only go by the telegrams published in the papers—

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shows that the fact of the export trade having been stationary in value during the previous three years does not disprove the theory that a low exchange stimulates exports. Since the close of the official year ending March last, during which time we had that tremendous fall in exchange, the rupee having gone down 2*d.*, roughly speaking, lower than ever it did before, to 1*s.* 4*d.*, the exports for the eight months ending November last were 553,000,000 of rupees, against 506,000,000 during 1885, an increase of 47,000,000, or about 8½ per cent. And also with regard to wheat, during the first six months of the year, the six months ending September, when exchange was down to that low rate of 1*s.* 4*d.*, the exports of wheat were 747,000 tons, against, during the same six months of 1885, only 557,235 tons, and in 1884 445,350 tons. Again, during the same six months, the export of yarns was 48,000,000 lbs., as against 40,000,000 during the six months of the previous year, and 33,000,000 lbs. during the same six months of the year 1884.

1993. (*Mr. Barbour.*) Are those the exports of yarn from India?—Yes, Indian made yarns.

1994. Are they exported to silver using countries?—Yes.

1995. That would not be affected by the exchange, I suppose—China and Japan?—No, they would not be much affected by the exchange.

1996. Except that the fall in exchange might shut out English yarns?—It would help to shut out English yarn. I just adduced these facts to show, as Mr. O'Connor wished to make an argument of the effect on exports during those three years during which exchange had fallen, that, singularly enough, during the first six months of this year, when the exchange went down 2*d.* lower than ever before, the exports were materially increased, so that disposes of the argument that when exchange was low exports did not increase.

1997. (*Sir T. Farrer.*) I have taken out of the monthly returns just published the figures of trade between the United Kingdom and India for 1886. Compared with those for 1885 they are as follows: Imports from India in 1885 were 31,900,000*l.*, in 1886, 32,100,000*l.*, an increase of 200,000*l.* The exports to India from the United Kingdom were in 1885, 29,300,000*l.*, in 1886, 31,300,000*l.*, an increase of 2,000,000*l.* That is, that while in the latter year the imports from India into the United Kingdom remained just about the same, the exports from the United Kingdom to India increased by 2,000,000*l.*?—Yes; and bearing on that you would perhaps just allow me to mention cotton goods. During 1886 we exported to India 2,119,000,000 yards, and in 1885 only 1,664,000,000 yards, so that there was an increase of 455,000,000 yards. The values were respectively 18,483,688*l.* and 15,477,366*l.*, so that we had an increase last year in the export of cotton goods to India of 27 per cent. in quantity, and 19½ per cent. in value.

1998. (*Mr. Barbour.*) Do you infer from that that a low exchange favours exports from this country to India, or that large exports from this country to India cause a low exchange? Do you think that the two are connected in any way?—I was not drawing any particular inference from that at this moment, but I have always argued with my bimetallist cotton goods exporting friends in Manchester that they were wrong in thinking that this fall in exchange checked their business with the East. I was under the impression that the fact of India getting so many more rupees for her produce than she would have got if the exchange had not fallen put her in a better position as a buyer, because it gave her more money to buy our exports with.

1999. (*The Chairman.*) Your view is that not only the export trade of India is stimulated, but that the import trade is also stimulated to a great extent?—That is my view. My view is borne out by the fact that she takes not merely an increase in bullion, but more of our manufactures to pay for her exports as well.

2000. Any conclusion from the statistics of the last

few years is liable to be misleading, on account of the other causes which have operated?—It is. I was merely bringing up these statistics at the present time in answer to the minute which has been put forward on behalf of the Government of India by Mr. O'Connor, and which no doubt will have great weight with the members of the Commission. And in connexion with that perhaps you would just allow me to draw attention to another thing. We ought to take a longer period than those three years referred to by Mr. O'Connor. I would go back to his own report of 1881–5, in which he gives a comparison between the progress of the trade of India and the progress or retrogression of the trade of other leading countries; and he points out that, as between 1873 and 1884 (eleven years of falling exchange), while the trade of Germany only increased 7·89 per cent., Italy 3·14 per cent., the United States of America 21·4 per cent., France 7·27 per cent., India increased 57·49 per cent., so that her increase of course was immensely large compared with any other country. Mr. O'Connor himself, in that very report, published a year before he wrote that minute, says,—“If we look back over a series of years, we shall find that the trade of this country has expanded far more rapidly than that of either England, France, Germany, Italy, and the United States.” Of course I admit that India has had her resources more developed proportionately than some other countries. I admit that the railway extension in India has been very large during those years, and, after a great deal of fighting, we merchants have got rates very much reduced, but the railway extension in India has, nevertheless, been nothing compared with the extension in America for the same time.

2001. Have freights fallen in America to the same extent as they have fallen in England?—Far more. The sea freights have fallen in the same proportion. The inland freights by rail are lower still in America than in India for export produce as far as anything I have seen.

2002. Has the railway extension been much larger in America than in India?—Immensely larger. America has put down as much in one year as you have in India in 30 years.

2003. But is it not the fact that the railways in India tap districts which are already highly developed, while the railway extension in America goes to new districts awaiting the railway system in order to develop?—To a great extent that is so.

2004. Therefore *pro tanto* an equal mileage in India produces an immediate effect on the trade of the country?—I think you will find that the railway extension per annum in America during the average of these years, from 1873 to 1885, has been as great per annum as the whole of the increase for these 11 or 12 years in India.

2005. (*Mr. Barbour.*) In those figures which you gave us showing the relative increase of the foreign trade of different countries, I think the trade of all the other countries was measured in gold, and that of India in silver?—Certainly.

2006. That would make some alteration?—That makes a considerable difference. They are all in their own currency. I have merely given the quotation exactly as Mr. O'Connor gave it himself.

2007. (*The Chairman.*) You have not reduced them to a common measure?—No, I have given Mr. O'Connor's own figures.

2008. Has not Mr. O'Connor reduced them to a common measure in his report?—No. One is an increase in silver and the other is gold. With regard to what you say about rates, America is, on the average, getting her produce carried by railway at infinitely cheaper rates than India. It is quite true that by some of the great trunk lines in India, the East Indian especially, and the Bombay and Baroda and the Rajpootana, the rates are low, though perhaps not so low as in America, but the Great Indian Peninsula, which taps a country, roughly speaking, as large as France and Germany, practically has a monopoly, and they are still charging very high rates, and therefore,

on the average, our rates in India are certainly not down to the American model of cheapness.

2009. Taking a survey of the whole Indian question, and keeping in mind the well known difficulties which the Government of India are in in order to meet their obligations in India, is it your opinion that India has benefited by the fall of silver?—Decidedly. If it is a question you are going into I will give you some figures, because I am of opinion that the accounts put forward by the Government of India are to a certain extent misleading. They are certainly misleading to all people who do not take the trouble to go into a very considerable amount of investigation. If you will allow me, I should like to draw attention to a few figures connected with the position of the Government of India. In the first place, the loss is stated in the budget in a way which I know, as a matter of fact, misleads all people in England who have not made a special study of Indian finance. For instance, in the last budget statement, in one of the paragraphs we see that the loss this year is estimated at 4,800,000*l.* in round figures against 3,400,000*l.* last year, and I find that all people who are not absolutely experts take these figures for granted. For instance, I heard an ex-Viceroy, speaking about Indian finance, say that the budget this year estimates for a loss of 4,800,000*l.* in exchange. To begin with, that does not mean pounds sterling. If the budget had been waded through it would have been found that it meant tens of rupees. If you convert the loss into sterling at the rate they have estimated to get this year, 1*s.* 6*d.*, you must deduct 1,200,000*l.* of it. Well, then, I find that, except among experts, everybody takes it for granted that that is an absolute loss, and the people are very much surprised, as a rule, to find that all that is meant is that it is the difference between drawing at the rate they would like to draw at, 2*s.*, and say this year the estimated rate of drawing, 1*s.* 6*d.* Then the 2*s.* the par rate they take and calculate their loss on is a pure assumption. I find, looking at the average rate of the Government drawing, that in no year since 1860, even during the time when the exchange was so high through cotton advancing 500 per cent., did the Government get an average of 2*s.* I mention this just to show how absurd the assumption is that they ought to obtain 2*s.*, and to show that if you were to resuscitate silver, and bring it up to 15½ to 1, they would not get 2*s.*; and according to their theory they still would have to state in their budget that they had a great loss on exchange, even if we had a bimetallic international convention on the basis of 15½ to 1.

2010. It is not quite fair to call it the theory of the Government of India; it is the theory rather of the people who hastily read the Government accounts?—Yes, but it is very important that people in this country, those outside the Commission, should know that this loss is to a great extent fictitious. It is true that if you wade through the figures of the budget that loss is no longer stated in the actual accounts. If they spend 1,000*l.* in England and it costs them 12,000 rupees, they now put 12,000 rupees as the cost of the article, instead of 10,000 as the cost of the article and 2,000 as loss in exchange, as formerly. But although the accounts are made up in that way, what the people look at here, and what an ex-Viceroy, speaking at Manchester, said, is that the loss by exchange is 4,800,000*l.* They did not go through the budget accounts, but took the plain statement.

2011. (*Mr. Barbour.*) Can you produce any statement in the budget or the accounts to show that 4,800,000*l.* was stated by the Government of India this year to be the loss by exchange?—Allow me to refer to the quotation:—"The vital difficulty which the Government of India has had to encounter is that, with a revenue which is almost wholly in silver, it has to provide the funds necessary for the protection of the country, whether from famine or from the point of view of military requirements, to bear an ever increasing burden on account of gold

"obligations, and to add largely to this burden by borrowing in gold. It has seen its liabilities under this head increase for the two years 1884-5 and 1885-6 from 3,426,424*l.* in the accounts of 1884-5 to 3,672,300*l.* in the budget estimate of 1885-6 and to 4,424,900*l.* in the revised estimate for that year. It has estimated its liabilities in the coming year at 4,837,000*l.*, so that in three years it has added to its estimates of expenditure the sum of over one and a third million on this one account alone, but in spite of this it has absolutely no means of judging how far in the course of the year the fall of silver may add to its estimated expenditure on account of exchange."

2012. I do not see that the total amount mentioned is represented to be actual loss. It is merely said that the amount the Government has to provide has increased?—But people understand that the 4,837,000*l.* referred to meant loss, and further on there are further statements with regard to loss. There are several quotations I could find when you come to that point.

2013. (*The Chairman.*) The important thing is, not exactly what mistakes an uninstructed public make about the loss to the Government of India, but what that loss really amounts to. We will be very glad of your assistance in elucidating that point?—I have pointed out that, even when we had silver averaging 61*d.* the ounce, they did not get 2*s.* Therefore, to call it a loss as compared with 2*s.* is erroneous from that point of view, especially as silver can be laid down in India cheaper than it was then. The next point is this, that the amount which they remit for the old guaranteed railways as a balance is fixed by contract at 1*s.* 10*d.* Therefore it cannot be right to say that the loss on such amounts is as between 2*s.* and the rate at which they draw; the loss is as between 1*s.* 10*d.* and the rate at which they draw.

2014. But this is the same correction, is it not, to which you have already called attention?—No, it is a different thing altogether. I pointed out what their average rate of drawing was during the years when silver was at high prices, that is, that they did not get 2*s.* then. They got various rates. 1*s.* 10¼*d.* to 1*s.* 11⅜*d.* were the rates for the six years ending with 1872-73. Therefore, to assume that exchange would be 2*s.*, if you had 15½ to one, would be erroneous. In the second place there is a fixed rate, as far as I can make out, from papers at my disposal, affecting old guaranteed railways for adjusting the balance of their remittances of 1*s.* 10*d.* If that rate is adjusted at 1*s.* 10*d.*, it would not be right to calculate your loss as between 2*s.*, because the loss is as between 1*s.* 10*d.*, and the rate at which you draw. It is also quite fictitious of course to say that they lose 6*d.* in every rupee in respect of stores they buy in England. From what I can make out, this year they are to buy between three and four million pounds worth of stores in England for various purposes, for railway and other Government stores. Now they buy those at those depreciated gold prices, and they draw for them at the rate of the day when they pay for them. Well, there is no loss on a transaction like that. I might as well, if I bought 100 bales of shirtings in Manchester for shipment to India, begin by debiting myself with 25 per cent. on the transaction, because I drew at 1*s.* 6*d.* instead of 2*s.* to pay for them.

2015. (*Mr. Barbour.*) Has the Government of India ever said that there was a loss on the purchase of these stores?—That is part of the remittances.

2016. On stores required for the construction of railways, I agree with you that there is no real loss; but, supposing there was, it would not be charged to exchange at all, or shown in that figure of 4,800,000*l.* to which you refer?—Up to last year they would have put it as a loss, as far as I can make out.

2017. The Government of India has never said, so far as I am aware, that there is a real loss on the purchase of stores?—No; but in the Indian statement they take the loss on the whole remittances, and part of these remittances would be for stores.

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2018. I will read to you what Sir Evelyn Baring said on this question, in his financial statement for 1883:—"To speak of the total amount entered 'under 'Loss by Exchange' as money lost is, of course, wholly erroneous, for under any reasonable hypothesis in respect to the relative value of gold and silver, only a portion of the amount can be considered as a real loss. We propose, therefore, for the future, in so far as the published accounts are concerned, to get rid of the item 'Gain by Exchange,' on the revenue side of the account altogether, to discontinue the use of the word 'Loss,' and to insert a net figure on the expenditure side of the account under the head of 'Exchange on Transactions with 'London.'"—Yes, I know they do. They have put it in the accounts this year in that way.

2019. But these remarks were made in March 1883, and the change was made at that time?—Well, then, one very important thing that I wish to point out is this, that of course we know that a very great amount, a very large proportion of these remittances to England are in respect of loans; and when we come to talk of losses to the Government of India, you must take into consideration, I think, the difference in the rate of interest. The Government of India, roundly speaking, when they borrow in sterling in England borrow about one half per cent. cheaper than they can borrow in rupees in India. Of course it is quite manifest that if that half per cent. were put to a sinking fund at compound interest, it would not only suffice to pay any loss on interest, but it would, in a measurable time, pay off the loan. For instance, looking to the two latest quotations, I find that the $3\frac{1}{2}$ per cent. loan, payable in 1931, was 100 to 100 $\frac{1}{2}$ (from the "Economist" of 29th January). In "The Times of India" of 19th January, 4 per cent. paper stood at 96 $\frac{1}{2}$, which was equal to 4 $\frac{1}{2}$ per cent. There was a difference, therefore, last month of $\frac{1}{8}$ per cent. between the rates at which the Government would be able to borrow in the two countries.

2020. (*The Chairman.*) But has that any bearing upon this question?—I thought, sir it had a very important bearing as to whether the loss that the Government of India have in remitting to England every year is compensated for in any way.

2021. But the rate at which India can borrow in England, I suppose, simply depends on the credit of India?—No, they can borrow in India to-day if they wish, and then they have no risk of exchange on their shoulders. They take the risk of exchange and they get a lower rate of interest, and therefore I think it is very important to point out that part of this so-called loss in exchange in remittance is voluntarily incurred because by borrowing in the more stable currency they are able to save $\frac{1}{8}$ per cent. per annum.

2022. But supposing England and India used the same currency, India would be able to borrow in England at the same rate as she would now?—If there was no rate of exchange between the two countries she would.

2023. Therefore I do not see the relevancy to her power of borrowing of this rate of exchange. Is it not a state of things that would equally occur if they used the same currency?—India would not borrow at the same rate in India as in England. If the interest were payable in India she would not be able to borrow at the same rate as if it was payable in England. That is, even if she had the same currency. There would always be an exchange against India if you had a gold currency in India. There is far less capital in India; the rate of interest is always higher, and when there was a rush of business money would get tight, and you could not get the specie to relieve the pressure instantly. You have a four weeks' voyage from London, and therefore you would have great fluctuations in exchange even if you had the same currency. I argue that from the fact that, even when you had silver maintained at a stable rate of 61d. per ounce, I have seen the rupee change 3d. or 4d. With the telegraph the difference would not be

so great, but the sea voyage was very much the same twenty years ago as now. You would have great fluctuations of exchange even with the same currency, and therefore the Government of India would not be able to borrow with interest payable and the capital repayable in India at the same rate as in London.

2024. It would, no doubt, be convenient for the Government of India to borrow in London. Whether that should be put as a set-off against loss by exchange is another matter?—I maintain that the mere fact of borrowing, payable in London, gives her a much lower rate of interest than she would be able to obtain, even if you had the same currency in India as in England.

2025. But why should that be set off against nominal loss by exchange?—Because in taking into consideration what India loses by having to remit in payment of gold liabilities in England while her revenue is in silver you must, of course, calculate any saving which she may be fairly assumed to have attained by borrowing, payable in London, as compared with borrowing, payable in India. She goes there for the lower rate of interest, and there are certain disadvantages in the remitting, whereas if she borrowed, payable in India, she would pay a higher rate of interest. The one I think is fairly to be set against the other.

2026. Is there any further set-off you would make against the loss by exchange which is usually stated to fall upon the Indian Government?—I do not at the moment remember any further set-off. I merely wish to reiterate what I said, that of course if investigated, that so-called amount of 4,837,000*l.* is, to a great extent, fictitious, and I hope that the members of the Commission, if they agree with me, will bear that before them in estimating India's gain or loss by the fall in silver. I wish, sir, to draw attention to one or two other statements in the budget.

2027. One question before you leave that. It is only fictitious practically and substantially by the amount by which 2*s.* differs from 1*s.* 10*d.* or 1*s.* 10 $\frac{1}{2}$ *d.*?—With regard to the amount that is remitted for the guaranteed railways, there of course it is wrong by 2*d.*, and in respect of interest on loans, say borrowed this year, if they have to remit next year at the same exchange, of course there is no loss.

2028. It depends on the age of the loan?—The age of the loan. If they borrowed 3,000,000*l.* this year, and the exchange averaged 1*s.* 6*d.* this year, and next year the exchange averaged 1*s.* 6*d.*, and they have to remit the money next year, there is no loss in that case, I maintain.

2029. Have you considered how much of the annual loss by exchange is a real loss?—No; I have had difficulty in making up my statements because the trade returns are so long in coming out.

2030. But the Indian Government are quite alive to these modifications?—Yes, only that the Indian Government budget statement, you know, is like a special pleading in favour of bimetalism, and, while doing that, reiterates this statement that they lose 4,837,000*l.* in remitting.

2031. I think Mr. Waterfield, who is being examined before the Commission, has put the loss at its real and not at its nominal rate?—That is all I wish to draw attention to. The Government of India say, "We could have provided for famine railways, we could have met our increased military expenditure for our frontier railways, for our coast defences, for our frontier works, &c., if we had been able to carry out our calculations in a medium which possessed some stability."

2032. But I do not understand that you necessarily differ from that?—Yes, I do, sir. I say that, according to the budget statement of the Government of India this year, the increase in military expenditure over estimate was 3,291,000*l.*, and I cannot see how a few hundred thousand pounds more or less of a fluctuation in exchange being saved would enable them to meet 3,291,000*l.* of increased expenditure.

2033. (*Mr. Barbour.*) Did not that statement of the budget about the ability to provide for certain

charges refer to what could be done as regards the future, not to the year that was closing?—No. The statement goes on,—“The uncertainty in respect of silver neutralizes the most carefully formed forecasts of the future, and renders the task of budget making almost illusory.” When a Government was in such a sound financial position, to make such an outcry about the fluctuations which may occur in exchange really seems like special pleading for bimetallism.

2034. That is not the intention of the Government, but you would admit that the substantial and real loss would amount to some millions?—This budget statement refers to the difficulty in budget making. Reading their statement on that point, one would imagine that there was no elasticity in the revenue. I maintain that in the present financial position of the Government of India it is not correct to say that a question of a few hundred thousand pounds per annum in their loss by exchange makes budget making almost illusory.

2035. Are you not confusing two difficulties which the Government of India feel, one which they say prevents them carrying out those defensive preparations on the north-west frontier, and the difficulty of arranging their budget for the coming year, in which an oscillation of 400,000*l.* or 500,000*l.* can very easily make a difference?—But all through that budget statement you see a plea in favour of bimetallism. Reading that in connexion with other statements from the Government of India, you see the same thing. They make out a case, as it were, and they plead that unless you resuscitate silver, and save them from these possible fluctuations in exchange, there is no chance of their being able to make both ends meet. That is about the substance of the whole argument, and I wish to point out that the whole fluctuation may be 500,000*l.* or 1,000,000*l.* When you are dealing with such an elastic revenue and such large means it does not make budget making illusory. According to the Statistical Abstract, which is sometimes difficult to understand, the Government borrowed during the 10 years ending with 1885 nearly 59,000,000*l.* It spent on railways, irrigation, harbours, roads, and other public works, 116,000,000*l.*, so that, in round figures, during the 10 years ending 1885 the financial position of the Government of India was so satisfactory that out of revenue they were able to spend 6,000,000*l.* annually on public works, so that I do not see that a few hundred thousand pounds loss in exchange should put them into such sore straits and make budget making illusory.

2036. I must ask you this question again; are you not confusing two entirely distinct difficulties under which the Government allege that they suffer? One is the fact that they have actually to pay more to liquidate their own debts by 3,000,000*l.* or 4,000,000*l.*; the other is that, in their forecast of approaching financial ways, they cannot, within some hundreds of thousands of pounds, tell what their expenditure may be?—That is the cause that they give forth as making their budget illusory.

2037. It makes the difference between a surplus and a deficit?—Yes, but I do not see how, if they were quite sure they were not going to have a loss of 500,000*l.* or 600,000*l.* as compared with their budget, that would prevent budget making from being illusory. They spend above 3,000,000*l.* for frontier defences and Burmah in one year.

2038. The difficulty of making the budget arises from the fluctuation; the difficulty of providing frontier defences is provided by a permanent fall?—I am speaking of the fluctuation only; they speak here as if the fluctuations make budget making illusory.

2039. It has no connexion with the north-west frontier. That is not the difficulty which they refer to in that last passage?—If you put the two together. I think that where they are dealing with such large items it is a mistake to speak of the possible difference of a few hundred thousand pounds in exchange making

budget making illusory. I want to say another word in connexion with these same paragraphs. They say that if they had a stable medium, if they had not to arrange for this possible loss in exchange, “We could have provided for famine railways, we could have met our increased military expenditure for our frontier railways, for our coast defences, for our frontier works, &c., if we had been able to carry out our calculations in a medium which possessed some stability.” I think that is a mistake. Where they have such a large amount of revenue to deal with, a possible difference of 500,000*l.* or 1,000,000*l.* on one item in 70,000,000*l.* does not make budget making illusory.

2039*a.* I think the gentleman who penned that paragraph is imagining a stable medium of exchange at 1*s.* 10*d.* and not 1*s.* 6*d.*?—Yes, but they are arguing in favour of bimetallism. I mentioned the position of the Government of India as to their being able to spend 6,000,000*l.* out of revenue annually on public works, and that therefore this was not such a very serious matter, this question of a few hundred thousands more or less loss in exchange.

2040. Now as to the other point which you mentioned, as to this other fall in silver, which undoubtedly necessitates their spending more rupees for their remittance to England?—I maintain that against that there is a great deal to be set off, that there is practically, I believe, no loss to the Government. I believe that the exports have been developed, and of course that means that a large portion of the immense increase in railway traffic receipts must have come into the Government exchequer. Only a very small portion of the whole increase in receipts is divided in shape of the surplus profits with shareholders of guaranteed railways. And now this is an instance of that progress. I find that in 1883, and I am obliged to take these old records because we have not got the later books, there were 10,144 miles of railway open, while in 1873, only 5,370, an increase of 4,777 miles, that is to say, the increase in the mileage open is 89 per cent. as between 1873 and 1883. I find on the other hand that although rates have been greatly reduced during that time, as those gentlemen connected with India know, the revenue from railways as between 1883 and 1873 has increased by 280 per cent.

2040*a.* The revenue from railways?—The mileage of open railways has increased only 89 per cent., and the revenue has increased 280 per cent. Taking it at the 2*s.* exchange the revenue has increased from 2,880,000*l.* to 8,090,000*l.*

2041. Have you any figures as to increase of expenditure in working railways?—No, but I will give you other figures with regard to net revenue which bring that out too. To show the improved position, I mention that in 1873 the budget loss on railways, with a much smaller mileage open, was 2,163,000*l.*, including loss in exchange. In 1882 the loss on railway working was only 205,000*l.*, although the loss in exchange had increased from 169,000*l.* in 1873 to 1,315,000*l.* in 1882. They were able to pay a loss through exchange of 1,300,000*l.* in 1882 as against a loss of 169,000*l.* only in 1873, and yet the net loss from railways, including exchange, was less, in round numbers, by 2,000,000*l.* From those figures it will be seen that the position of the Government of India has immensely improved, that they must be receiving a large increase in railway revenue through the fall in silver to make up for the increased number of rupees that they have to pay for their remittance.

2042. (*The Chairman.*) But increase of railways is not due to the fall in silver?—I say the increase of railway revenue is to some extent due to the fall in silver, having developed the export trade. I wish to point out one thing, as the matter will probably be brought before you. I see that Mr. Palgrave, in a minute appended to the Third Report of the Depression of Trade Commission, speaks of the Indian salt revenue not having expanded since 1873. While pointing out that the drop in silver has assisted the develop-

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ment of the railway traffic, he says it has not developed the revenue in other directions so very much. He instances salt, and points out that the revenue from salt in 1882-3 was a little over 6,000,000*l.*, and that it was about the same amount in 1872-3. When I saw that I remembered that there had been a very considerable reduction in the rate, and I managed to find a budget statement of 1881-2, and saw that up to 1882 the rate of salt duty was in Bengal 2 rupees 14 annas, elsewhere 2 rupees 8 annas. It was during that very year reduced to two rupees all round, so that the revenue was maintained with that immense reduction in rate. Going back to 1881-2, a year in which there was no reduction, and comparing it with 1872-3, the other year taken by Mr. Palgrave, I found that there was an increase of 1,208,588*l.*, fully 16 per cent.; and I think, though I do not know that I shall be able to find the papers, that in 1873, or about 1873, there was some other reduction made in the salt rate. This increase we may say was in spite of some reduction as between 1873 and 1882.

2043. (*Mr. Barbour.*) Are you aware whether, between 1872-3 and 1881-2, arrangements were made with the native states of India which enabled the Government of India to collect the salt duty on salt consumed in those native states; and, if so, would not that account for a portion of the increase between 1882-3 and 1871-2?—What I wanted to point out was that Mr. Palgrave, in those particular figures, was mistaken in the inference that he drew. He was not aware of the reduction during those two particular years of course. Another instance of the progress of India is given in the budget statement of this year. It is where the finance minister draws attention to the fact that the interest payable on loans not covered by public works has been reduced, as compared with 1877-8, by 940,348*l.* Of course, as the information is not in the budget statement, I am not able to say whether this is altogether by reduction of debt or merely by reduction in the rate of interest through reissuing the loans. On looking at the Statistical Abstract for 1884-5, and comparing it with 1878, it seems that the balance of loan not covered by public debt has however decreased in those years from 105,000,000*l.* to 88,000,000*l.*, so that somehow or other the Government have managed to wipe off much of the debt not covered by great public works, and reduce the interest by 940,348*l.* per annum. Of course many other instances might be adduced to show that India, during the last 10 or 12 years, has been prospering. These few I have picked out as being, I think, undoubted evidence of that fact, and I will not trouble the Commission with any more. I dare say the facts are before their minds; but, as Mr. Barbour is a member of this Commission, I would just like to point out what he said in his book on bimetallism published last year. He said, "The progress of the Indian revenue shows that the general prosperity of the country, which is largely due to the stability of price maintained by the partial demonetisation of silver, very materially counterbalances, even from a purely financial point of view, the increasing burden thrown upon the Government of India by the fall in the rate of exchange."

2044. You have no doubt that in recent years there has been very considerable prosperity in India as compared with former times?—That is my opinion.

2045. I do not think there is any doubt that in many respects the Indian revenue has shown considerable elasticity in recent years?—That is my opinion.

2046. I think you said, with regard to that question of loss by exchange, that the Government put forward the loss as 4,800,000*l.* I read you a passage from the financial statement of 1883-4, which showed that the Government do not look on that sum as the real measure of loss, or as representing the extra number of rupees which they have to find owing to the fall in exchange?—I know they do not; that was why I was careful to explain that if experts waded through

all the published statements they would see that the Government of India understood their own position. What I was complaining of was that by these budget statements even an ex-Viceroy could be so misled as to go to a public meeting and dilate on the terrible effect of this loss of 4,800,000*l.*

2047. We had evidence from Mr. Waterfield the other day that a fall in exchange to the extent of 1*d.* in the rupee made a difference of about 10,000,000 of rupees in the amount that had to be remitted home?—Yes.

2048. I suppose you have not seen the calculation, but would you challenge that statement?—I think that, no doubt, is quite correct.

2049. Of course, in the case of a loan, you must look at the rate of exchange at the time the loan was taken up?—Yes.

2050. If it was taken up at 1*s.* 8*d.*, and had fallen to 1*s.* 6*d.*, you lose the difference between 1*s.* 8*d.* and 1*s.* 6*d.*?—Certainly.

2051. And in the case of stores you hold there is no loss. The Government of India knows the gold and silver price; it need not buy stores unless it likes?—Exactly.

2052. If it goes into a contract at one time at a certain rate of exchange, and if before that contract is completed the rate of exchange alters, and causes it to pay more rupees, that might be looked upon as a loss?—Oh, undoubtedly, the fall between the day of contract and the day of payment is a loss.

2053. You said an extra loss from a fall in exchange was not of so much importance when the revenue amounted to 70,000,000*l.*?—What I meant was, speaking as a per-centage, a fluctuation of a few hundred thousands in a country with a 70,000,000*l.* budget is not a great deal.

2054. Is not that 70,000,000*l.* what is called gross revenue? For instance, it includes the whole of the railway receipts?—Yes.

2055. Now, if you included the railway receipts of all England in an English budget, you would swell it to a very great extent?—Yes, certainly.

2056. So that the loss of a few hundred thousand pounds by exchange is a considerable amount if you consider the net revenue of the country of India?—Yes, it makes a very much larger per-centage, but I also meant that they were dealing with items of revenue which might easily fluctuate quite as much as silver, for example, railways themselves.

2057. And in fact the revenue of the Government of India is exposed to many difficulties and uncertainties. The railway receipts and the land revenue may fall off, the opium revenue is uncertain, and in comparison with those you think the exchange difficulty is not an overwhelming one?—I think not so overwhelming a one as to make budget making illusory. In round numbers the total receipts from all railways in 1883 were 11,000,000*l.*

2058. They would be considerably more now, of course?—Yes, the railways increase every year. Of course, they have 2,000 more miles open now.

2059. I think Mr. Waterfield said the net revenue was 44,000,000*l.* If there was a fall of 1*d.* that would make 1,000,000*l.*, or a proportion of one out of 44, you see?—Oh yes, it makes very much larger per-centage.

2060. And as the Government of India is subject to so many difficulties and uncertainties in connexion with its finance and in other matters, would it not be advisable to remove any uncertainty that it is reasonably practicable to remove?—I believe you have counterbalancing influences. You have got the fact, for instance, that last year, with the lowest exchange, you have the biggest trade ever known. You have the biggest export last year, and if Government do the carrying and get the railway rates on your enormous increase in exports and imports, of course there alone you have a set-off.

2061. That is all on the assumption that the rate of exchange is the cause of the increased exports?—There is no great increase in the number of miles

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opened last year to account for the great increase in the quantity of goods carried.

2062. I believe the Government of India in its proposals does not insist on having a higher value of silver. I think what it asks for is a fixed ratio, a fairly constant ratio. You would not see the same objection to a constant ratio if it was 1s. 6d. per rupee that you do see to 2s. per rupee, or any such high ratio?—Very many of my objections would be at once removed. I have not exactly made up my mind on that subject, but, of course, my strongest objection to the general argument of bimetalists is that if you push them into a corner they want 15½ to 1 again.

2063. You do not see any objection to the existing market ratio being made permanent, if that be practicable?—I see very little objection to it. I would not be prepared to take a very strong line of opposition to a proposal to fix it on anything like to-day's basis, and I may say in connexion with that that about a year ago I was talking with the chief manager of one of the largest exchange banks in London, and I said, "Now, are you a bimetalist?" "Well," he said, "I am a bimetalist, if you fix it on to-day's ratio. It would suit my own business in the bank much better. These fluctuations cause anxiety, although we can protect ourselves against them. But, although I am a bimetalist, if they proposed to raise silver by 20 or 30 per cent. I would oppose it by every possible argument, because it would do far more evil than any good it could do in connexion with India, and also to money interests in this country."

2064. (*The Chairman.*) Would the dislocation caused by a return to the old relative prices of silver and gold produce more harm than the change from the old prices to the new has done?—Well, you see, we have taken practically from 1873 to 1887 to fall 4½d. in the rupee, and if you were to put it back 4½d., in a few months, I think the injury would be enormous.

2065. It is not the means of the exchange but the rapidity of the exchange that you would regard as so serious?—I think it is the rapidity that I object to mainly, and I think in regard to India it would be an immense injury.

2066. (*Mr. Barbour.*) Then with regard to this question of budget making, you see there comes in the question of the uncertainty in the exchange. If the exchange falls 1d. in the year, as it might very well do, you are a million out in that direction, and if it rises a 1d. you are a million better off in the other direction. In this way you get a possible difference of two millions, which is a serious matter of uncertainty in arranging for the expenditure?—If you had bimetalism I believe you would have fluctuations of 3 or 4 per cent. in exchange. I have had a difference of 3 or 4 per cent. between Bombay and a place up country in silver when silver got scarce.

2067. Would you have so large a fluctuation extending over a whole year? The fluctuation to which you refer might be for a few days?—I have been in Bombay when a pressure set in in February, money going to 12 or 15 per cent., and with the Government willing to sell telegraphic transfers, and silver shipped to India by every steamer, we did not get over the difficulty till the general export season was over.

2068. In any case you would have that difficulty?—And if you had money suddenly going up in Bombay, Calcutta, and Madras to any great extent, as it would do in any great export season, you would see exchange fluctuating 4 or 5 per cent., even if you had a fixed currency between the two countries.

2069. But the fluctuations would be in the nature of a temporary rise, I suppose?—They would all oscillate from a given centre.

2070. It would not affect the Government so seriously as if the exchange fell 1d. or 2d. permanently?—No, it would not, and yet this is a curious fact. If you take silver at 61d. and see what it costs to lay the rupee down in India, including the mintage, you will find that the cost is much above the average rate

obtained by Government in some of the years when silver was maintained at 15½ to 1.

2071. You have seen that the exchange might very easily make a difference of a million either way, a fall or a rise, and it only takes an alteration of a penny in the rupee to have that effect. Is it not highly undesirable in a country like India to be continually changing in the matter of taxation, putting it on one day and taking it off the next? It would be so, but I believe if the exchange falls the export trade for that year is stimulated. Very often exporters of cotton, for instance, have been at a standstill, because people would not pay any higher price in Europe, and sellers were unwilling to take lower prices in India. All at once exchange falls, business goes on, and the Government of India gets the railway charges on the cotton exported.

2072. It is commonly held, I believe, by political economists that countries trade with one another with reference to their respective facilities for the production of particular commodities. For instance, India finds she can produce wheat relatively more cheaply than she can piece goods, and England has special facilities for the production of piece goods. This state of things is held to be the cause of international trade. India sends wheat to this country, and England sends piece goods to India. That is what economists generally state is the origin of international trade. Do you think that view is correct?—Oh, there is no doubt, I think, that the exports and imports pay for each other.

2073. It is the comparative facility which different countries possess for the production of different commodities that causes them to find it convenient and profitable to interchange their respective products?—There is no doubt of that.

2074. Well, then, how could a fall in the rate of exchange affect the facilities that India has for the production of wheat rather than piece goods either one way or the other? Could it give a greater facility for the production of wheat, or would it reduce the facility for the production of wheat as compared with piece goods?—Well, of course, if the producer had to invest all the proceeds of his sale of produce on imported goods, it would be as broad as long to him; but, if a cultivator gets payment in rupees for his produce, he personally, probably, expends very few rupees in the imported goods.

2075. But is there not somebody else who purchases the rest of the articles imported in payment for that wheat?—Yes, that is so.

2076. According to the fall in the rate of exchange this other person has to pay so much more for his piece goods?—Yes, he has to pay more according to the value of the rupee for the time being in gold.

2077. Taking India as a whole, not looking at the people who produce these particular articles, it seems to be pretty much as broad as it is long. If she gets more rupees for certain products exported, she has to pay more rupees for certain products imported?—Yes, but she receives more for the balance of her exports.

2078. That balance is payable in gold and silver?—That is payable in gold and silver.

2079. As a matter of fact, India is not getting gold any cheaper than she used to do; she is getting it dearer, is she not?—If she buys gold she has to pay a dearer price for it.

2080. And she pays rather more for her silver than she used to?—Well, she pays of course more of her produce for it.

2081. But a great deal more for the gold?—Yes; but then, of course, the reason why she pays more produce for it is, I believe, because there is a general fall all over the world from the causes I have mentioned in the value of produce.

2082-3. Then don't we come rather to this, that there does not seem to arise so much a benefit to India in her export trade as benefit to India because her prices remain more nearly the same; that is to say, prices in India have fallen, as it were, 10 per

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cent., and prices in England have fallen 30 per cent., and in that respect the Indian producer has an advantage; he has about the same price as before, whereas the English producer has to take 30 per cent. less?—Yes. That is what helps to stimulate the exports; her prices remaining very much the same, only 10 per cent. less against this heavy fall here.

2084. In fact in India prices have remained more nearly the same than they have here?—Yes.

2085. Consequently the Indian producer and Indian manufacturer, in so far as regards the standard, have had some advantage over the English producer and manufacturer?—The advantage to the Indian manufacturer is less than to the cultivator, because the manufacturer of any article the raw material for which is exported pays a higher price at once. Cotton and jute manufacturers, the two great manufactures of India, of course have to pay for their cotton and jute the price regulated by the gold value at home, because we exporters are always willing to pay the equivalent, less a very small margin at any time. A manufacturer has to pay therefore for his cotton or his jute the same price that the English merchants have to pay. And as there is no coal at Bombay except what is imported, the cost of the coal consumed there is enhanced by falling exchange.

2086. But there is this difference—his labour?—He pays for his labour in silver. He is protected in his labour, and any country-made stores which he may use. Take the Bombay mills, about which so much is said in Manchester. Their only protection is in the rate of wages; skilled labour has, however, risen in Bombay.

2087. And I suppose if they borrowed a certain amount of money, the burden is less if they originally borrowed in silver than gold. For instance, if a man borrowed 1,000 rupees 15 years ago in India, and somebody else 100*l.* in England, at that time the value of the two amounts would be pretty nearly the same, and so would the interest payable on them, assuming it to be at the same rate. But the one debt would now represent a greater value than the other, and the burden would be proportionally increased?—Yes. As to the Bombay mills, there is a great deal of talk about Lancashire being handicapped by them. They are no doubt protected in regard to labour and country-made stores; but, in respect of cotton, there is of course no protection; and, as you know, there is no coal in Bombay. They all burn imported coal, and they therefore pay a higher price for that as exchange rises. The mills which are now being built, and mills which have been built of late years, have all to import their machinery and pay for it at the lower exchange too.

2088. They have an advantage in Bombay, in being nearer the place where the cotton is grown?—There you open up another question, which was discussed when we had the agitation for the abolition of the import duties. When friends in England wrote asking me to help, I replied that they would not get the trade back in coarse goods and yarns, because it was not a question of 3 or 5 per cent. in respect of goods which could be made economically from Indian cotton. This has been proved by the result. The local industry has prospered in spite of the remission of duty.

2089. Do you think the fall in the exchange has been of very great advantage to these Bombay mills?—Well, it has only helped them to the extent I mentioned, in the wages and the few country stores which they use. I hold and maintain that the greater extension in the export trade of those yarns is due to the fact that when the thing was once properly started, it was found that it was a very profitable industry. They get the cotton there before it is pressed, and they can make better work with it than after it has had 1,200 or 1,500 tons pressure on it to prepare it for shipment. With coarse numbers of yarn and coarse cloths they have of late years, on the average, been making large dividends on the mills, when all those goods if shipped from Lancashire would have

shown a great loss indeed, the natural advantages being so great.

2090. It comes to this, that the Bombay trade in manufactured cotton, especially the export trade, is due to natural advantages which Bombay possesses, and not to any fall in exchange?—Exchange has helped them a little, no doubt, but I have a very strong opinion to the effect that the trade would have been developed without it on account of its natural advantages. The moment they try to use Indian cotton for finer yarns than it is suited for—it is very different when spinning yarn which requires cotton with long staple—English competition will come in.

2091. It is more the natural advantages of India that has helped her in the export trade than a fall in the exchange?—As regards wheat, of course the opening of the Suez Canal has been a great help. It is always a mistake to attribute too much to the fall of the exchange. I believe it has had something to do with it. As you asked me about wheat, I would say that before the opening of the Suez Canal there was almost no wheat exported from India. In 1872, the time I was Chairman of the Chamber at Bombay, wheat exporters who were trying to open up the trade pointed out to me that the whole revenue from wheat was only about 6,000 rupees, and urged that something should be done to take the duty off and give the trade a chance, and that this could be done without any great loss of revenue. I had a talk about it in Bombay with Lord Northbrook and Sir Evelyn Baring, and the latter wrote me a letter and said they would repeal the duty. The extension of railways, cheap railway transit, and cheap freight have had a very great deal to do with the development of the export trade, but at the same time America has had all these advantages too.

2092. The advantage the Indian producer has had over the American producer in regard to wheat is that the price has been continually falling for the American producer more than for the Indian?—Yes.

2093. The land in India is not rendered more productive, nor Indian labour more efficient, by the fall in exchange, nor does that fall in any way increase the natural advantages of India, but the Indian producer has had the advantage of a comparatively stable standard?—Yes; Mr. Moreton Frewen made a speech in London at a congress of Chambers of Commerce of the Empire as to how far the Indian wheat trade is protected by the fall in silver. He went on to say, "And this is the force within the United States which banded together all the producers, the farmers, the farmers of the west and south, to defeat the recent attempt to suspend the coinage of silver in the United States."

2094. So it appears to come to this, that, as the political economists say, the export and import trade of India depends very much on the natural facilities in that country for the production of certain articles, and that the fall in exchange has only been of benefit in so far as India has been working on fairly stable prices?—It has helped, of course, to keep her prices stable while agricultural produce in other countries has been falling, and therefore it has helped to stimulate her export trade.

2095. India has had an advantage as compared with gold countries, but the fall in exchange has not made the soil more fertile, or had any effect of that nature. It is in some respects an artificial advantage, an advantage derived from the currency. You would not call the fall in exchange a natural advantage?—No, of course not.

2096. It does not make the soil in one country more fertile than in another, or anything of that sort?—No, but even if it be an artificial advantage, I do not think the country ought to give it up.

2097. (*The Chairman.*) That is not quite consistent with the evidence you gave to me. I thought your contention was that the advantage the Indian wheat exporter got was not that the silver remained tolerably stationary in value, but while it did so gold would rise, which is quite a different proposition?—

No, what I wished to establish in the first instance was that there had been a great fall in the consuming countries, mainly owing to the reasons that I stated, and that the fall in silver had prevented the Indian agriculturist from feeling the extent of that fall in the consuming countries. He had been saved from 20 per cent. of that fall, and that had stimulated cultivation and export.

2098. But supposing silver had remained stationary in value in India, and gold in England, instead of rising, had fallen in value, I apprehend that in your view the Indian wheat producer would have got no advantage, but a disadvantage?—I think he would have been at a disadvantage, because I believe that if gold remained stationary, the special articles, the quantity of which has been so very largely produced, would have fallen, and therefore he would of course have been in a worse position than he is now.

2099. Let me put it in this way. Supposing prices had remained stationary in India, and prices in England, instead of falling, had risen, the Indian producer would then have been at no special advantage?—No, not if you had prices rising in England, certainly.

2100. And therefore the advantage the Indian producer has is not, as Mr. Barbour made you say, from the stability of the Indian medium of exchange, but from the fact that, while that medium of exchange has remained constant, gold in England has risen?—Well, of course you can put it either way. I do not see that there is a great difference in it. Of course, if we could be sure that the bimetallist's theory of putting silver up 30 per cent. would at the same time raise prices in the consuming countries, the countries that consume Indian produce, 30 per cent., then I could not see much harm as regards the Indian producer in such a measure, but I do not believe that the effect of a bimetallist arrangement, under which you increase your currency by giving silver the relative value of $15\frac{1}{2}$ to 1, would raise prices here 30 per cent. I do not think it would do it.

2101. (*Mr. Barbour.*) Do you think it would have any effect at all in raising prices here?—I think that it would have some effect.

2102. Do you think it would have any effect in lowering prices in India?—You mean of prices generally?

2103. The prices of articles exported from India?—Well, of course, if you raised the value of silver 30 per cent., and the prices here do not rise 30 per cent., then the prices in India must go down and adjust the rise in silver.

2104. That is to say, supposing the trade depends on the natural facilities for production of the two countries, and not upon the ratio of exchange, if the exchange alters, that alteration will not stop trade. The prices in the two countries will adjust themselves to the altered rate of exchange, will they not? They may be higher in one country and lower in another, but they will adjust themselves, and trade will go on?—They will adjust themselves in time, no doubt, but there would be a long period of depression among agriculturists, I think, after it, if you were to raise the exchange 30 per cent.

2105. Is it not a question of there being a disturbance for a time; suppose, for instance, we woke up to-morrow and found the rate of exchange was 2s. for the rupee, I suppose, at the present price, no wheat would come from India?—I do not think it could.

2106. The result would be that traders would know that no wheat was coming or likely to come next year from India, and I suppose that would put the price of wheat up?—Well, I do not know. America seems practically able to grow any quantity.

2107. Do you not think that to reduce the available supply of wheat by 1,000,000 tons next year would have an effect on the English wheat market?—It might have an effect on the wheat market. If you were to handicap India in that way, I think America would have her opportunity. One thing you must take into account is that America can lay her

wheat down much more cheaply here. Her sea freight from the northern ports is almost a bagatelle compared with India.

2108. Do you not think that to reduce the export of wheat from India by 1,000,000 tons next year would have an effect on the English wheat market?—It might have a temporary effect, but I think America would come out so largely to secure the advantage that it would not be much. America would immediately produce more.

2109. Don't you think, if it was known in India that there would be no demand for wheat next year for export, that the price of wheat would fall?—I think it would fall to such a price that it would not pay to grow it, just as it was in some districts before you had the railways.

2110. Don't you think it would come to this in the end, that the price would rise somewhat in England, and the price would fall somewhat in India, and the trade would accommodate itself to the new rate of exchange?—The price would fall somewhat there, and the price would rise somewhat here. Looking to the general position of the cultivators in India, and the small amount left per acre to pay for the railway advantages, a fall in price would be a great calamity.

2111. But still trade would adjust itself to these conditions?—It would in time, but I believe for the time being you would check your export considerably.

2112. But India would have to pay for her imports, and would do so by her exports?—If you check your exports you probably check your imports too. If a country became to a certain extent, or considerably, depressed, naturally you would not buy so much.

2113. But the real wealth of the country would not be reduced by an alteration in the rate of exchange. There would be as much wheat as before; it is only a question of its price?—If you checked the cultivation there would be less.

2114. But the cultivators would not check the cultivation of wheat unless they could grow something else that was more profitable?—But is it not a fact that in some districts where they have no railways they could at times not sell the wheat for the amount of land assessment?

2115. Was not that because there was no means of carriage?—Well, if you reduce the wheat value of the rupee 10 or 15 per cent. by raising the rate of exchange against him, is it not possible he might have nothing left after he paid his Government taxes?

2116. If prices fell very low in India it would be an evil to the producer. Supposing prices fell 30 per cent. in India?—Supposing silver rose 30 per cent. and the effect was to raise gold prices 10 per cent. here, well, exporters would have to stop business until the Indian producer reduced his price by 20 per cent.

2117. You think a fall of 20, 15, or 10 per cent. in India would be a great evil?—Well, looking to the low price of produce at present, from all I have heard about the ryot's poverty, if you had another fall of, say, 20 per cent., I should say that it would be a very great evil.

2118. And I suppose you look upon a fall of price in England also as a great evil?—Well, to the cultivator or producer certainly. In India they are all cultivators. In England it is a small proportion of the population. What you want is cheap food for the manufacturing classes. Probably in India you have 250,000,000 of agriculturists to feed,

2119. There is a certain number of day labourers and others who have no land in India?—I suppose there are a good many, no doubt.

2120. Cheap food is a good thing for them?—Yes, it is a good thing for them, but most of the people live by agriculture, and I suppose that the labourers on the agricultural estates are paid to a certain extent in kind.

2121. And as far as the cultivators consume the food which they produce themselves, it makes no difference to them what the price may be. They

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produce the food and they consume it, and do not sell it?—If they do not produce enough, or if what they produce won't sell, they would not be able to pay their land assessment.

2122. But the person who purchased and consumed the food would get it so much cheaper?—As they are mostly employed by the agriculturist, they would probably very soon get smaller wages.

2123. (*Mr. Courtney.*) I wish to ask you about this question,—the effect on the trade in India about which we have had some discussion. What is the effect of the reduction of the value of the rupee relatively to the gold? I suppose you import from India into England, do you not?—Well, that is our principal trade, shipping from India. We do both importing and exporting.

2124. And you have persons who are buying up throughout India?—Yes, we have branches in the interior.

2125. Suppose there is a disturbance in the relative value of gold and silver in England, so that the value of the rupee falls. You know at that time the price, say, of wheat in the London market which is measured in gold; you know what has been the price of wheat in India which is measured in rupees. Would the effect of that change be to enable you to send out orders to your buyers to buy?—We look from day to day at the price we can get for the produce in the currency of the country in which we sell it. We have every day fluctuations in the rupee price, the rate of exchange, and the rate of freight, and as the whole thing is worked by telegram, of course we practically stop operations, if the margin is against us, until some one of the three things gives way; and if, on the other hand, there is a fall in exchange, the business we may have in hand is facilitated. Probably, we know we can sell at certain sterling prices, and we are all anxious to get hold of the stuff and make something out of it. Therefore, when exchange falls suddenly, we exporters are willing to pay more money at once for produce.

2126. In fact, that alteration of the margin at once develops in you a desire to buy?—Yes, we all rush in to try to get the produce to make a margin out of it at once.

2127. So that, for the moment, the effect is that your buyers are going in, and the increased demand is produced?—Yes, all European buyers are.

2128. And, so far at least, there is a momentary increase of trade?—Yes, an instantaneous one.

2129. With probable consequence of the rise of the article produced by the ryot?—Yes, immediate.

2130. So that the ryot obtains more for his wheat than he did before?—Yes, so long as the gold price remains the same.

2131. But the effect of the decline in the exchange is to give the ryot a greater price in rupees for his wheat?—Instantaneously. As an example I may just tell you this. You know the exchange market in Bombay and Calcutta is like the stock market. It fluctuates almost from hour to hour, and if, after the banks are open at Bombay, a broker comes in and says, "I can sell bills for you at a reduction of one 'per cent.," the first thing merchants do is to telephone down to the markets to their men to buy, if they have any business in hand that will pay at the lower exchange.

2132. Let us confine our attention to the ryot. He gets his increased price for his produce. What are his outgoings?—First of all there is his land tax.

2133. Is that affected by the amount that he gets?—No.

2134. So that so far he would get a benefit?—He would get a benefit in another way. If you look at Mr. O'Connor's statement you will find that railway charges which are payable in rupees have not risen but fallen lately. Let me say, to show you what they are, at the time he wrote that minute, taking wheat sent from Cawnpore to Bombay, 19½ per cent. of the price in Calcutta was railway carriage, from Delhi 16½ per cent., Jabalpur 14½ per cent., so you may

say that 15 or 20 per cent. of the price of wheat in Calcutta is railway charge, and that is invariable, or at any rate does not rise with falling exchange.

2135. And the rent is an invariable item?—I think where they have no permanent settlement they adjust them at intervals every 30 years.

2136. For present purposes it is invariable?—It is invariable for the time being.

2137. What are his other outgoings?—I do not know whether he has much besides his food.

2138. (*Mr. Birch.*) He produces, however, all his own food?—He buys little of imported articles. Probably the only thing he buys is a little cloth, a few brass vessels, and a little silver.

2139. (*Mr. Courtney.*) The only alteration of his disbursements would be with respect to the imported articles, which would be a very small share of his expenditure?—Yes.

2140. And he would have a greater balance of rupees in his hand?—Yes.

2141. Is not the mere possession of silver an object of desire on the part of the Indian peasant?—Silver rupees to him are the actual possession of wealth.

2142. But not merely as means of exchange, but as things to hold and possess?—They like gold ornaments as well.

2143. But at all events these precious ornaments are objects of desire?—Yes.

2144. And the effect of the fall in the exchange in London is to enable the ryot to get a larger balance of rupees in his hand after the settlement of all charges, a greater satisfaction of his desires in that respect whether foolish or wise?—Yes.

2145. Mr. Barbour talked to you about goods being paid by goods. Is it not the fact that a large quantity of the goods which come from India to England are not repaid with goods but by precious metals?—Yes, I drew that distinction. I said that the shipment of goods was repaid by goods up to where the amounts were equalised, but the balance was paid in the precious metals.

2146. And so far only there would not be anything to set off against the gain from the better price of wheat, if we still confine our attention to wheat. So far as the balance is paid in coin that is a realised balance which does not pass away?—No, that is in his possession.

2147. Now, suppose another hypothesis, that, through changes in production in the United Kingdom, the exported articles are undergoing a natural diminution of price just sufficient to counterbalance the loss in exchange, in that case those articles put on the Indian market would practically be unaltered in price?—Yes, if the two things balanced they would be perfectly unaltered.

2148. Have you any reason to believe that something of that kind has been going on, that with respect to exported articles there has been a gradual diminution in price owing to the development and the greater cheapness of production?—As matter of fact the fall in values here has been on the whole, perhaps, greater than the fall in exchange, and consequently these imported articles are, on the whole, even cheaper than they were before. I think that is the case with Manchester goods at any rate.

2149. So far, at all events, the ryot, whose case we are considering, has got all gain and no loss?—Yes, up to this point that is so.

2150. But the situation of India, apart from that of the Indian Government, would, in respect of this matter, be that of an aggregation of ryots?—Yes, they all gain on the balance undoubtedly.

2151. And who loses in India apart from the Indian Government?—I do not see that anybody loses in India apart from the Indian Government, and I do not think that Government lose. Their increased revenue, owing to the greater prosperity and increased railway receipts, counterbalances any loss they have in remitting against their gold liabilities.

2152. And that process of gain has been going on step by step?—Yes.

2153. And suppose the thing went on further; suppose the rupee still further declined, would you not be able to realise the same prospect of gain at each stage?—Yes, at first sight it would appear so.

2154. It may be inconvenient for the Indian Government, but not for the Indian ryot?—For the Indian ryot, I do not see, speaking off-hand, that there could be anything detrimental to his interests in the matter.

2155. If you put it in this simple way, what the Indian ryot wants is silver. If silver is cheaper, his position is improved?—Yes. Of course the time would come when the prices generally would, to a certain extent, adjust themselves.

2156. But does not that depend upon the development of commercial ideas on the part of the Indian ryot?—As regards his land tax in districts where they have not a permanent settlement, I suppose, if the ryot were found to be very prosperous in the matter of possession of silver, the Government at the next settlement would raise his tax.

2157. And if the ryot took to banking, or investing his savings in trade, probably prices would be very rapidly affected; but, supposing he practically hoards his balance, would there be anything then to cause a rapid readjustment of prices?—Perhaps not rapid; but if we had a continued further fall, I think there must be a tendency to adjustment in the long run. I do not say that it has not been very long in coming about, and there are not many signs of it at present, but in time it is difficult to believe that there would not be a readjustment.

2158. You were asked some questions about the supposed adverse effects; first of all of a reduction of prices through development, or the cheapening of production, and next an enhancement of prices through an alteration in the value of the medium of exchange. Are you aware that during the long period from the end of the great war in 1815 down to, say, 1850, there was on the whole a continuous reduction in the prices of articles produced in Great Britain?—Yes, I have seen that in different works on the subject.

2159. And if there had not been, about 1850 and thereafter, a disturbing cause, the same cheapening of production which was practically going on would have produced a continuous decline of prices?—From all I have read and heard, it appears to me that if it had not been for gold discoveries there would have been probably a continued decline, or at any rate no rise.

2160. Don't you think that it has counteracted, to some extent, the alteration of prices caused by the gold discovery; that if it had not been for that continuous cheapening of production, the effect of the gold discoveries would have been to send up prices higher than they did?—I think so.

2161. So that it still worked on, that cheap production?—I think that the influence of cheapness of production and transit have been very great indeed, and must continue.

2162. And the nation has derived benefit, as a whole, from it?—Undoubtedly.

2163. Did the nation derive benefit, as a whole, by being the recipient of cheaper gold from Australia, and practically acting as the merchant in it, and sending it to other countries in the world? In this country we received the gold, to a large extent, from Australia and California, where it was produced with less labour than before. It did not remain here. We took it, and went, to a large extent, as merchants, to the Continent and elsewhere, with a great portion of it. Do you think that was a profitable transaction to us?—You mean used it by manufactures.

2164. To buy raw materials to a large extent, and the agricultural products?—Well, I should think it was, certainly.

2165. Is there any reason why you should doubt the possibility of our having derived benefit from both sets of causes, although they practically worked in different directions, the cheapening of prices and the

discovery of gold?—I think we did derive benefit from the two.

2166. About the possibility of fixing the ratio, of fixing the relations between gold and silver at the present market ratio, you have no great objection to that?—I do not say that I have any great objection to it. It is a matter to which I have not given very much thought, therefore I should like to reserve my expression of judgment in respect of it, but I may repeat what I said before that of course the objections to fixing it at 15½ to 1 would not, to a great extent, apply to the fixing of it at the present ratio.

2167. Are you aware that in 1850 there was great anxiety on the part of persons of the highest authority as to what would be the effect of the depreciation of gold?—Yes, I believe it is a fact. In fact, a friend of mine told me that he knew that it was stipulated by landlords that they might demand payment of rent in silver. Chevalier and Cobden were very much alarmed about it. I know that that anxiety existed.

2168. Supposing that state of things were left alone, and there should be a cheapening of gold again, so that by natural causes the rupee should mount from 1s. 6d. to 2s., do you think it would be desirable now to fix it at 1s. 6d. if we could do so by legislation?—I do not think so from that point of view.

2169. You prevent the only attraction to a natural return?—Precisely.

2170. (*Mr. Birch.*) I understood you to say that, in your opinion, gold has not materially appreciated as against commodities, but rather that production has increased, and consequently commodities have been selling at lower prices?—Not quite that. I think that the greater portion of the depreciation in the price of commodities is not due to gold.

2171. And consequently, except for the benefit of exchanges, India might have had difficulty in competing with other countries?—I think so.

2172. You said that the variation in exchange had affected the price of cotton at a certain period?—Yes.

2173. That prices in India, as a rule, will always vary with the exchange, as they do with other charges?—Certainly.

2174. Exchange is part of your element of charge?—Precisely as freight and other charges.

2175. Violent fluctuations in exchange only affect the grower in that, unless prices in the growing country vary, he receives as much rupees for his produce. The question of exchange is simply an element in the merchant's calculation?—Yes, that is all.

2176. A fall in the price of wheat here would have the same effect as a rise in the exchange?—Yes, precisely the same thing.

2177. And India has derived a great benefit from the fall in the price of silver?—That is my very strong opinion.

2178. Following your argument with regard to the Indian budget and exchange, it really tends to show that India is in the same position as Italy or any other country which borrows money in England and has to remit the interest at varying exchanges, and consequently has to arrange her estimates on an uncertain basis?—Certainly.

2179. (*Mr. Cohen.*) You spoke of America interfering to prevent the fall of the rupee to 1s.?—Yes.

2180. Then you contemplate that it should be within the power of legislation to arrest the movement of silver?—I think as to the power there is no doubt whatever. If you could get the leading countries of Europe and America to agree to a bimetallic arrangement you would, at any rate for a time, have great stability.

2181. It would be an advantage, you think?—I do not say it would be an advantage, but I say it would have the effect of arresting the decline in silver. I do not wish to express an opinion on that point without giving it more thought, but as to the power, I have no doubt whatever they could do it.

2182. I think you said that it would be an evil for the rupee to go down to 1s., and you think that America would arrest that?—No, I did not say that.

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I said that at first sight the advantages of the fall to 1s. 6d. would be increased by a fall to 1s., and that it required, of course, some thought to say what the final result of it all would be.

2183. What I want to get at is, whether in your opinion there is a state of things possible or probable in which the interposition of the Governments should be invoked?—Well, I am not prepared to say that I should be inclined to advocate that our Government should go into a bimetallic arrangement now on any basis, but I am certainly opposed to it on a basis which would raise the value of silver materially. I would not like to express an opinion in favour of it on any basis.

2184. (*Sir T. Farrer.*) You said just now that the ryot was getting more silver. Where would that silver come from? You would expect on any fall of exchange of this sort to see a great import of silver?—There was a large increase in the import of silver last year, but they were taking a good deal of gold for two or three years before that, because the native likes gold ornaments, of course.

2185. But would it not throw some difficulty in the way of the position if you were to say that last year, when there was the largest fall in exchange that we have ever had, there was a very great diminution in the export of silver to India?—There was an increase last year again, I think; in the latter portion of the year the tide turned again.

2186. From the trade and navigation returns in 1884, it appears that the export of silver to India was 7½ millions, in 1885 it was 7,100,000*l.*, and in 1886, the year of the great fall in exchange, it was less than 5,000,000*l.*?—I would just like to say with regard to that point, that probably that is only a temporary thing, and may be accounted for by the curious fact that the imports of merchandise into India during the eight months ending November, the first eight months of the Government of India year 1886–7, have increased 14 per cent.

2187. I will give you the facts for the whole year. The exports from this country to India increased by 2,000,000*l.* in 1886 over 1885?—Yes. I heard you say that, but the curious part of it is this, that you see Mr. O'Connor, in that statement made up to the end of the financial year, the 31st March 1886, pointed out that there was no expansion, while with the following year, beginning the 1st of April last, there was immediately an expansion both in exports and in imports. The figures, I believe I am right in speaking from memory, were for the first eight months an increase of 14 per cent. in imports and 8 per cent. in exports, so that just for that time India was taking more merchandise than silver.

2188. So that during that period, the earlier part of the year, when there was the greatest fall in exchange, the increase was not in exports to India, but imports into India?—Yes, it is a very curious thing.

2189. It is a very curious thing on your theory. I would like to ask you this further question, whether if a fall of exchange stimulates exports from India in the way in which you mentioned a fall in exchange ought not to check exports from this country to India?—No, it does not.

2190. How is it? Surely it is merely the reverse operation. A fall in exchange prevents a merchant getting as many rupees for his gold. It gives to the Indian exporter more rupees for a given quantity of gold; it gives to the English manufacturer a smaller quantity of gold for the same number of rupees. Ought it not to have the reverse effect?—I think that the prosperity of India has been increased by this fall in silver, and that therefore the country seems better able to buy the Manchester goods. That is the only explanation I can give of it. At the same time, if you take a series of years instead of merely one year, you will find that when the exchange has been falling, India has been taking more bullion.

The witness withdrew.

Adjourned till Friday, February 11th.

Tenth Day.

Friday, 11th February 1887.

PRESENT:

THE RIGHT HON. A. J. BALFOUR, M.P., the CHAIRMAN, presiding.

MR. D. M. BARBOUR.
MR. J. W. BIRCH.
MR. J. CHAMBERLAIN, M.P.
MR. L. L. COHEN, M.P.
MR. L. COURTNEY, M.P.

SIR T. H. FARRER, BART.
MR. C. W. FREMANTLE, C.B.
MR. W. H. HOULDSWORTH, M.P.
SIR JOHN LUBBOCK, BART., M.P.

MR. GEO. H. MURRAY, *Secretary.*

MR. J. TALBOYS WHEELER was examined.

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2191. (*Chairman.*) You have come before us to represent the grievances of the uncovenanted Indian Civil servants, have you not?—Just so.

2192. Are you yourself an uncovenanted Civil servant?—Well, I found that I was; I never thought that I should be treated as one.

2193. And you represent them?—Yes, I represent them.

2194. Is there an association?—There is a committee formed.

2195. And you come here on behalf of that committee?—Well, I cannot say that, because I have not communicated with the committee at all, but as I was appointed chairman, I suppose I represent the committee.

2196. But I suppose you are intimately connected with the case which the committee wish to lay before this Commission?—Intimately.

2197. Could you state to the Commission precisely in what you consider the grievance consists?—In en-

tailoring a loss of 25 per cent. upon all pensions and furlough pay paid in Europe.

2198. But the Indian Government of course profess that they fulfil strictly the bargain that they entered into with the uncovenanted Civil servants when these servants entered their service?—That was at a time when no one dreamed that there would be any fall in the rupee; and not only that, but when the rupee rose above par the Government of India proposed to keep back the surplus.

2199. How long was the rupee above par?—It was above par in 1865; about 2*s.* 2*d.* or 2*s.* 3*d.*

2200. Did that rate of exchange last for more than a few weeks?—I really could not say that, but it was always fixed in all our minds that the rupee was 2*s.* or a little above it or below it, and had been so from time immemorial.

2201. The rules were laid down in the year 1863, were they not?—Yes.

2202. I have before me a table here which professes to give the rates of exchange between England and India between 1837 and the present year, and I notice that 1861, which is two years before the period in which the rules were fixed, was the last year in which the exchange ruled above 2s. ?—That is to be explained in this way. I am speaking of sending money home by the commercial rates of exchange, and that was the Treasury rate of exchange.

2203. But still, according to the paper I have before me, the commercial rate in the year 1863, the average of the year, was 1s. 11d. and a fraction, and at that point it remained till 1870, and from 1870 to 1875 it was about 1s. 10d. and a fraction, and subsequent to that it has always been below 1s. 10d. ?—I can only say that I sent money home in 1865 at considerably over 2s.

2204. But was there not an accidental oscillation of the money market which enabled you to do that?—That I cannot tell you, because I was strictly in an official position. I was Assistant Secretary in the Foreign Office in Calcutta.

2205. The figures I have given are, of course, the average figures for the whole year?—There may have been some fluctuations of that kind.

2206. So that, as far as would appear, the Indian Government never can have had occasion to say that the rupee would not count for more than 2s. ?—They did so, because there is a note kept in the uncovenanted Civil servants' rules that the rupee was not to be more than 2s.

2207. Is there also a rule that it is not to be below 2s. ?—No.

2208. Well then, the Indian Government, in the original contract which they made with the uncovenanted Civil servants, evidently thought it might rise above 2s., and provided against it, but did not contemplate that any grievance would arise if it went below 2s. ?—No grievance arose when it kept about 1s. 11d., or thereabouts, but now that it has come down to 1s. 6d. the grievance is most grievously felt.

2209. But there is no breach of contract?—No, but it is a hard bond.

2210. In other words, if the Indian Civil servants could have foreseen that the exchange would fall to 1s. 6d., and if the Indian Government could have foreseen it, they would probably have introduced a rule that the rupee was not to count below a certain rate of exchange ?—I cannot tell you what the financial departments of the Government of India would have done.

2211. Would they have found a difficulty had this been foreseen in getting gentlemen to enter their service?—All this arose from a matter of policy, to equalise the Asiatics and Europeans who did not belong to the covenanted service. It was laid down in 1863 that Asiatics and Europeans were to be treated alike; that in future, appointments in the uncovenanted Civil Service would as far as possible be given to Asiatics. Of course that was impossible in many cases, as many of these appointments were scientific. I was Professor of moral philosophy and logic in the Madras College, then Assistant Secretary to the Government of India in the Foreign Office, and afterwards Secretary to the Government of British Burmah. I never contemplated having a pension, which would be wealth to an Asiatic, but poverty to the European.

2212. (*Mr. Birch.*) Was your contract for English currency or rupees?—I had no contract whatever. I trusted entirely to the liberality of the Indian Government. I never dreamed of getting such a small pension as I have got now.

2213. (*Mr. Fremantle.*) You accepted a post at so many rupees a month?—I accepted a post when there were no furlough rules at all, but pensions were on half pay. There were no rules till 1863, when I had been in the service five years.

2214. (*Mr. Barbour.*) You understood the salary

would be paid in rupees?—I never troubled about the matter for a moment.

2215. Did you take it for granted at that time that 10 rupees were equivalent to 1l. sterling?—That was the view.

2216. You did not question the fact?—I knew nothing about pensions; in fact, I never knew till I was about to retire that I was to get so small a pension.

2217. (*Chairman.*) Your complaint against the Government is not that they have broken their contract, but that they have proved ungenerous employers?—Yes; hard and strict, like Shylock's bond.

2218. Now come to the exact material loss to the uncovenanted Civil servant. I understand that in India, so far as the pension is spent in India, no loss occurs, because silver has not fallen materially?—No, it has not fallen materially. I have heard recent arrivals say that wages had risen, but I have heard that complaint for many years past, in fact ever since I went to India—it started with the Mutiny—the general complaint was that wages were rising. That is the only thing in which I have heard that there is any difference.

2219. So that the material difference arises when the pension is paid in England?—The pension and furlough pay which are paid in England.

2220. Is it not the fact that prices have fallen to the same degree as silver has fallen?—I could not tell you. I was 20 years in India, and I found everything very expensive when I came home.

2221. If it be true that prices in England have fallen in the same proportion as the rupee has fallen, there is no material loss?—All I can say is that when I was a young man a five pound note went a great deal further than it does now.

2222. (*Mr. Barbour.*) I think that what are called uncovenanted pensions were originally payable in rupees in India, and not payable in England at all?—The rise of the uncovenanted service was an anomaly. The covenanted Civil servants were nominated by the directors of the East India Company in England, and came out to India and did all the work of clerks and writers in public offices. When we founded an empire all these civil servants were turned into magistrates, collectors of revenue, and judges. They did not do the work they did formerly, and it was made over to a new class of men, mostly East Indians of mixed European and Asiatic descent, and these were called uncovenanted, so that for many years the term uncovenanted was a term of reproach. When I came out to India, the rule was that your pension was to be half-pay after a certain number of years' service, but we all expected that some new rules would come out which would specially apply to our case. First of all, in 1855, there was a stipulation that this half-pay should not exceed 300l. for 15 years' service, or 500l. a year for 25 years' service, and then in 1863 came out these rules, which are fixed here, that the pension should be 3,000 rupees for 15 years' service, and 5,000 rupees or 25 years' service.

2223. But my question is this: is it not the fact that all these pensions were formerly payable in India in rupees, and not payable in England at all?—But to a totally different class of men.

2224. But to all men who drew their pensions in rupees, they were paid in India and not in England?—I believe that was the case, but the old uncovenanted servants were mostly born and bred in India, and never went to England. We of the new service were all expecting fresh rules, because when the Education Department was formed no furlough rules were in force. If an officer was ordered to England on medical certificate he took half-pay and gave half-pay to the man who succeeded him and did his work for him. If an officer retired on a pension and went to England, it was considered a special case, and the Government gave him what they thought proper.

2225. Did not the Government of India subsequently pass an order, as a concession, that men whose pensions were payable in rupees might draw them in England?

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- Mr. J. T. Wheeler.* —It was no concession, excepting as a matter of convenience.
2226. To the officers?—I think not.
2227. You are entitled to a certain pension, payable in rupees?—Yes.
2228. And you find that as the rupee goes down you get fewer pounds sterling every year in England. That is your grievance?—That requires some explanation.

Certainly, when I went into the service I did not expect that I should retire on such a pension as I now receive, whether in rupees or pounds sterling.

2229. Your pension payable in pounds sterling is reduced year by year?—It keeps on fluctuating, and always gets less.

Witness withdrew.

Mr. ROBERT BARCLAY was examined.

Mr. R. Barclay.

2230. (*Chairman.*) You are a Manchester merchant, are you not?—Yes.

2231. Engaged in the trade with India and the East?—India and the East, and also South America, with the River Plate.

2232. Entirely with the silver-using countries?—No, I would not call the Plate a silver-using country at all now. So far as this matter is concerned, I do not think it could throw any light upon the question just now.

2233. Your chief transactions are with India?—With India in connection with this question, but I have had long experience with currencies in the River Plate trade, which has helped to throw a side light.

2234. Are you an exporter from India, or an importer into India?—An exporter to India of Manchester goods.

2235. Do you import from India?—Not at all. I may say that I have followed the course of silver for the last 20 years in connection with the River Plate trade. There we had silver as a remittance from our dealers, and it was my duty to watch the course of silver, because we often took it from our dealers as a commodity.

2236. Are you of opinion that those engaged in your trade have suffered from the fluctuations of exchange?—Yes, very materially.

2237. Could you explain the exact mode in which the fluctuations of exchange have injured you?—Of course merchants require to look out for themselves, and can adapt themselves to any class of circumstances, and the course of things has been such that the Manchester merchant in the Indian trade has now become practically an intermediary between the native dealer on the one hand and the manufacturer on the other.

2238. He no longer makes speculative purchases?—He does so to a certain extent, but he has always the idea of covering himself by sale and exchange contracts.

2239. On the whole does he succeed?—He has been succeeding better of late.

2240. Is there a speculative element in your trade, for instance?—There is always to some extent, and must be. A house going on with regular trade will see it to be an advantage sometimes to secure goods in anticipation of orders.

2241. But in the great bulk of your transactions you secure yourself against any speculative loss?—As much as we can.

2242. And on the whole you succeed?—Yes; and without violent fluctuations no doubt we would succeed.

2243. It is only possible for the merchant to cover himself when all the parties to a contract fulfil their obligations?—Yes, because there are so many repudiations and dangers to which we are exposed.

2244. So that the safeguards are more theoretical than practical?—Yes.

2245. They break down because people with whom you contract do not fulfil their contracts?—Yes; and the Exchange Banks sometimes suddenly decline to make forward contracts, or will only do so at rates lower than had been counted on. Any one acquainted with the Manchester market can testify that business there is always checked when a fall in silver takes place, and that Manchester prices have generally ultimately to give way.

Gold prices have had in the main to conform to silver values in our trade with the East, not silver prices to gold values. Something like the principle of gravity which we find in the physical world comes into play in the matter, and the *vis inertiae* of the one centre of valuation defies the power of the other. The quantity of silver in use throughout the East is immense, say at least 400,000,000*l.*; and the fact that this silver money, and the silver ornaments which are akin to it, are actually in the hands of the myriads who use the silver valuation gives a potentiality to silver valuations there, which enable them to hold their own against the gold valuations of Europe. Dealers won't pay more in rupees until there is some sign that supplies will be affected. As markets are generally fully supplied, and as our Lancashire mills cannot at once check their production, advances necessary from a fall in rupee exchange can rarely be got, and English prices have had as a rule to go down to conform to their altered silver equivalence.

2246. Would you explain to the Commission more definitely what you mean by gold prices conforming to silver values in our Eastern trade?—That is when a fall in prices takes place in India. I am speaking now of the fall in prices from a lower value of silver.

2247. The fall of the price of silver in India?—When that takes place the same price of course cannot be paid in Manchester. A lower price in sterling must be obtained, if transactions are to go through.

2248. By the exporter?—By the exporter. A fall in silver makes the relation of the two currencies different, and in order that a transaction may go through the Manchester manufacturer must accept a lower price.

2249. In other words, if you cannot get as much in the country to which you export for the goods which you export, you must buy them cheaper in the country from which you export?—Exactly.

2250. But that I think is obvious, is it not, if you are to make a profit?—Of course; yes.

2251. (*Mr. Birch.*) When you speak of a lower price, what market do you refer to?—A lower price in England. Some people are apt to regard silver, in viewing it in connection with English prices, very much as they regard paper money. Paper money must conform, and will immediately conform, or very quickly to the variations in the gold premium in any country; that is the paper price rises, but silver on the whole is in a totally different position. Silver is a centre of value.

2252. (*Mr. Chamberlain.*) Your point is this, is it not—that if the value of silver falls in England, an Indian purchaser will not give more silver for your goods, and consequently you have to take the same amount of silver, although that is worth less gold?—Practically.

2253. Therefore you have to accept a lower price in proportion to the lower value of silver?—Yes. I hold that people cherish the belief that silver prices must yield to gold prices, from a wrong conception of the power that silver prices still have in the world.

2254. (*Chairman.*) I do not precisely understand what silver prices yielding to gold prices means?—We have been so much accustomed to regard silver as the inferior metal, and to think of gold in the monetary system as an element whose superior gravity, so to speak, must necessarily control the power of silver, that we do not give due weight to the fact that they

are still, in the main, co-ordinate powers. The demonetisation of silver in Europe, while it has altered the relation of the two metals where they came into contact, has not affected the power of silver money over the vast areas and among the countless myriads of the East, where silver alone is the sole standard of value, and where there is no contact with gold valuations. The two metals are like two orbs moving in different planes, and while the rending of the tie of the bi-metallic ratio which kept their relative power in Europe steady has led to dislocation of the two valuations there, silver in its own sphere, where it alone is supreme as money, remains unaffected by what has happened.

2255. Perhaps your point would be brought out more clearly before the Commission if you would tell us what difference you think the fact that India uses silver makes. Supposing instead of the 400,000,000*l.* of silver in currency through the East you had 400,000,000*l.* of paper in currency, would there be any difference according to your view?—A very great difference, because silver is the money throughout these enormous areas, and paper, owing to the character of the people and their habits in hoarding money, could never take the place of silver.

2256. I am assuming that the paper would be convertible?—Among these Eastern races every person knows silver, handles it, and there is no contact with gold. Although we talk of the gold price and the silver price in this country, a native in India or in the East never knows that difference.

2257. It is merely the fact that we are dealing with a huge mass of currency permeating very numerous and small channels over an enormous area, with a very conservative population, that is the cause of the stability of prices in the East; it has nothing to do with the fact that the currency is silver?—Yes; and further, that India is not an exporter of silver. She is simply a receiver of silver. She is always able to receive it. Of course what would bring down paper money is that it may be issued in any quantity, and its value would at once be determined by its lower exchange powers with regard to Europe; but with regard to silver, it is the centre and basis of valuation. India never exports silver.

2258–9. (*Mr. Barbour.*) Is it the fact that prices do not change in the East?—That is a wrong assumption. I would not wish that to be drawn at all. I refer to variations in price through exchange differences.

2260. (*Chairman.*) Let us put it in this way. There is a great deal more friction to be got over before there is a change in India than there is in England?—Precisely; that is what I mean.

2261. I want to get more specifically the precise loss which occurs to merchants in Manchester from the variations in exchange. I want to know whether it is owing to the doubt which is thrown over those transactions, or whether to any other cause?—I have explained to you the position which the merchant now occupies. The merchant, as I have said, tries to keep himself clear of exchange risk in his transactions.

2262. And on the whole succeeds?—On the whole succeeds. The real merchant is the native dealer, who keeps the English merchant rigorously to his contract in the matter of time and everything else. The merchant in turn holds the manufacturer equally firmly bound, and if he fails in the matter of time, also holding him liable for loss in exchange which this may involve.

2263. Can you adduce proof of that?—Yes.

2264. We had it in evidence from another witness that the manufacturer was equally able to hold himself free of loss from exchange as the merchant?—I have here a memorandum on this point from an important cloth agent in Manchester. He says, “The necessity for the prudent merchant to fix his rate of exchange along with the purchase of goods, and thus be put to the labour and expense of two transactions where one used to suffice, are notorious, but

“recently these difficulties have become aggravated by new difficulties, arising from the nature of the case, where any breach of contract occurs through violent oscillations, such as those of last year, and the merchant endeavours to transfer his loss to the defaulting manufacturer. Breaches of contract may be wilful, or may arise from miscalculation of time on the part of the manufacturer; from unexpected difficulties in the process of manufacturing new styles of goods; from strikes of various kinds; from breakdowns of machinery, and many other unavoidable causes. The merchant, being unable to fulfil his exchange contract, has to pay his bankers the differences, and seeks to recoup himself from the manufacturer. Generally such claims end in compromise, and in our own business (turning over about 500,000*l.* per annum) we have allowed on such promises during the last 5 months 565*l.*, all from unavoidable causes. In addition, a Bombay indenter of 15,000 pcs. shirtings (which goods our manufacturers’ weavers refused to make, and twice struck against) claims to have lost 400*l.* on his exchange contract, which claim we resisted. At this moment we have three claims respectively of 30*l.*, 50*l.*, and 90*l.* = 170*l.*, from a new cause. Goods are unavoidably late—exchange has risen—rupee prices have fallen—the Indian indenter will only accept the goods at the lower rupee prices; the merchant has to fulfil his exchange contract at the lower rate, and hence these losses, which somebody will have to bear, and the market is full of such claims, which will probably end in some big law suits.”

2265. A Bombay indenter, what is that?—That is a native dealer sending an order to England.

2266. The loss mentioned there is 170*l.*, out of total transactions of 500,000*l.*, is it not?—He says within the last five months he has paid 565*l.*, and he has claims at the present moment for losses equal to 170*l.*

2267. Am I wrong in saying that the 565*l.* arose from other causes than variations in exchange?—There would probably have been no claims in the instances referred to but for the variation in exchange.

2268. Surely you mentioned breakdown of machinery, alteration of patterns, &c.?—The manufacturer is liable to all these dangers. Manufacturers work with very small capital, and they cannot afford to have too big a margin in time for the delivery of goods. Some of them have no warehouses to store them, and believing they can have the goods delivered to their agents at the proper time, they make the contracts and these things occur.

2269. And it is due to the alteration of exchange in the course of time?—It is entirely due to the fluctuations of exchange that they entail loss.

2270. (*Mr. Birch.*) Is it not customary to have a fine on a manufacturer not delivering goods up to time?—In the course of business there is a good deal of give and take in regard to ordinary business of this nature, but this is a new element, altogether apart from others that might arise. Merchants have to be considerate with their manufacturers, and as a rule they are so when this exchange difference does not occur. It is a thing that arises purely from violent exchange fluctuations, and you see it affects them both ways, whether exchange falls or rises. Even a single day’s delay may lead to repudiation by the indenter and the consequent losses referred to.

2271. (*Chairman.*) I quite understand the nature of the loss to the merchant. I now should like to know something about the magnitude of it. The transactions of the firm whose business you have described to us amount to about half a million a year, and the only losses of which they take note from fluctuations of exchange are in all about 700*l.*, are they not?—And another claim he has resisted of 400*l.*

2272. So that altogether it is about 1,000*l.*; within what period?—Within five months he speaks of; but then you must remember he is not a merchant; he is a grey cloth agent, passing goods through his hands for a very bare commission.

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2273. Is he the intermediary between the manufacturer and the merchant?—Yes.

2274. (*Mr. Barbour.*) His profit on the turnover of the year would be very small?—Very small; in fact, it is a ruinous thing for an agent, unless he can get it out of his manufacturer.

2275. (*Chairman.*) So you entirely dissent from the opinion given here the other day that the loss by variation of exchange, that falls somewhere upon the trade, can be diverted from one person to another until it reaches the small retail dealer in India. You are of opinion that it falls directly upon the manufacturer?—Not the whole. You see there are difficulties of this nature.

2276. But the greater part of it falls on the manufacturer?—I would not even say that. The differences in exchange, of course, are no doubt obviated very much by the counter transactions.

2277. But the one person that cannot save himself is the manufacturer?—He is the worst on the whole.

2278. The merchant can save himself, but the manufacturer cannot?—Yes.

2279. (*Mr. Houldsworth.*) In the contracts, if the various arrangements are all completed, and in time, there is no loss?—There would be no loss.

2280. (*Chairman.*) But what you have been pointing out is that there are accidents which occur and bring loss?—Yes, very serious loss, as any person acquainted with manufacturing knows.

2281. (*Mr. Houldsworth.*) Of course in the ordinary course of business, independent of exchange, there are losses of this sort constantly between the merchant and manufacturer. The merchant fails in time, and a complaint is made?—Yes.

2282. In this case failure of a day causes loss, owing to the difference in exchange, which makes the merchants claim much more than they would under ordinary circumstances?—A new element altogether, a special element.

2283. (*Mr. Barbour.*) Is it the case that this fluctuation in exchange leads to bargains being made on contract for future delivery rather than to immediate transactions?—Yes, it has changed the whole nature of business.

2284. And these contracts are fulfilled after a certain time, and during that time accidents may occur?—Yes. Formerly, the man who sent the goods abroad was really a merchant.

2285. (*Chairman.*) He is now simply a middle man?—He is now a middle man, and tries to keep himself in that position. Of course, the heavy loss from exchange variations is now to a large extent secured by these counter contracts, in which the bankers are the intermediaries; and they, as it were, combine the operations of the exporter of produce from India and the exporter of goods from England. But in spite of all this there are these difficulties that I point to.

2286. Then that exhausts what you have got to tell us with regard to the loss to the English merchant and manufacturer from fluctuations in exchange?—In the mercantile point of view.

2287. Could you now explain to the Commission the effect on the Indian manufacturer and exporter which the low rate of exchange has. I presume that mere fluctuations of exchange injure the Indian not less than the English exporter—mere fluctuations irrespective of whether they are up or down; but I understand you to hold that the Indian exporter benefits by the fact that the exchange has fallen?—Yes.

2288. Would you explain to the Commission exactly how you think that benefit accrues to him?—The main element of production, that is, cotton, is alike to the one and to the other.

2289. You are now confining your attention to the cotton?—Yes, I think I am better to do so. Then when a fall in silver takes place it affects both the buying of the Bombay spinner and the buying of the English manufacturer alike. They are both on a level with regard to that. Very well, the Bombay manu-

facturer has his wages and all his permanent charges to pay in rupee values. The English manufacturer has all these things to pay in gold values, and therefore when these are rendered into rupee values, in the case of selling against these Bombay mills, he is disadvantaged. There is a statement here which will demonstrate the thing very clearly. It is extracted from a pamphlet on "The Silver Question and the Cotton Trade." "At the end of December 1885, "good Dhollera cotton was purchasable in Bombay at "180 rupees per candy of 784 lbs.; of course this was "alike to the Bombay or Lancashire spinner. On "the same day 20s. yarn was selling in Bombay at "6½ annas per lb. With exchange at 10 rupees to the "English sovereign, the position of the two producers "would be as follows:—Taking 116 lbs. of cotton to "spin 100 lbs. of 20s. yarn—

	s.	d.
" 100 lbs. yarn at 6½ annas per lb. gives	79	8½
" 116 lbs. cotton at 180 rupees per candy	53	¾

" Margin after waste for spinning 26 5

"or rather over 3½d. per lb. This, with the rupee at "2s., is alike the margin for the Bombay and Lancashire producer. But the latter has to pay ¾ of a "penny for all costs in connection with the purchase "and import of his cotton and the export and sale of "his yarn, which would leave him a working margin "of only 2½d. against 3½d., but he could live and "sustain his trade at this difference. Let us try the "same case with the rupee at 1s. 6d., the Bombay "spinner still buying his cotton at 180 rupees per "candy and selling his yarn at 6½ annas per lb.— "how does it stand with his Lancashire competitor?

	s.	d.
" He sells 100 lbs. yarn at 6½ annas,		
" which at 1s. 6d. the rupee gives him	59	9½
" He buys 116 lbs. cotton at 180 rupees		
" of 1s. 6d. each per candy, which costs	39	11½

" Margin, after waste for Lancashire
" spinners - - - - 19 9½

"or 2¾d. per lb. Then deduct ¼d. for the cost of "import and export, and we find the Lancashire "spinner of 20s. yarn working his mill upon a margin "of 1½d. per lb. against the Bombay producer, comfortably progressing with an unimpaired margin "of 3½d. Can we wonder that spinning in Bombay "is growing and prospering, or express any surprise "at the difficulties about which spinners here complain? Every fall of a penny in the rupee takes a "full eighth of a penny from even this miserable "margin of 1½d. per lb. of the English spinners' "margin, while the Bombay spinner is unaffected "by the fall. It is of the highest importance to note "that the case is stronger the further you carry your "industrial operations. Bombay has become aware "of this, and is preparing to erect mills to spin and "weave shirtings from 30's × 30's yarns of Indian "cotton, and a company has been formed to erect "large dyeing and bleaching works, with a view also "to calico printing ultimately." There is thus a difference of ¾d. in favour of the Bombay spinner as against the English spinner, on the basis of exchange at 1s. 6d. per rupee as against 2s. per rupee.

2290. Does that arise solely from the fact that all the English manufacturers' costs are paid in gold, which has risen relatively to silver, whereas he is paid himself in silver, which has fallen relatively to gold?—Yes, he pays them in gold and collects them in silver. Of course I am showing how the thing would act at extreme points. No doubt many things have given way under the pressure of the lower price which the manufacturer must accept, but the immediate effect of a fall is such as I have said.

2291. (*Sir T. Farrer.*) You are speaking there of yarns to be sold in India for silver?—In India for silver.

2292. (*Chairman.*) The effect you are speaking

of is a permanent effect, and not one due to a temporary stimulus given by a momentary fall?—No; it tells immediately upon the fall, and remains more or less.

2293. As long as the relative values in the two places remain undiminished?—Yes, and especially wages, the most important element of all, keep up, it always remains.

2294. (*Mr. Houldsworth.*) Would you give us an indication of the adjustment? It seems to me that we should take this into account in estimating the result. It is an imaginary case that you put to us?—Yes.

2295. (*Chairman.*) You mean that there are compensations. Would you mention what they are?—Well, if wages were to give way.

2296. What are the actual compensations?—The articles that he can buy cheaper in consequence of the fall in prices in England. They are not very material.

2297. If prices in England have fallen to the full extent of the fall in exchange, the disadvantage to the English manufacturer which you have just described to us would vanish? If prices in England fall all round, or all the prices which the manufacturer was concerned with fell to the same extent as the exchange, he would not be worse off than he was before. You would assent to that?—Yes, if it could be carried out automatically. In fact, that would be practically putting the two metals on which prices are based on the same level all over the world.

2298. Then practically your view of the disadvantage to the English manufacturer which results from this fall in prices is that wages in England do not follow at once, perhaps do not follow at all, the downward course of other prices?—Yes, that is it. Then the practical result, you know, has been in accordance with these views.

2299. You do not deny, do you, that India has certain natural advantages which would have produced a great growth in the cotton manufacture, quite apart from the fall in silver?—Yes. This is taken into account here. The margin in the first estimate is $3\frac{1}{2}d.$ in favour of the Bombay spinner, against which the English spinner has to pay his charge of importing cotton and exporting goods, and this estimate takes $\frac{3}{4}d.$ off the price, but the price remaining would still enable the competitor from England to compete with the Bombay mills.

2300. Is there any distinction in your opinion between the case of the cotton manufacturer in Bombay and the wheat grower in India?—I would prefer taking that afterwards. I want to exhaust this point if you do not object. I have here a table of the progress of the Bombay Mills.

2301. Perhaps you will put that in?—Yes, I will put it in (Appendix IX., Table No. 1). I will just state roughly what it means. The Bombay mills have increased since 1877 from 41 to 95. The spindles have increased from a million to 2,200,000 roughly, and the looms have also doubled. Now as to the effect of this trade upon Lancashire. You are all familiar, from Mr. O'Connor's statements, with the rapid growth of the exports from these mills. They were started with the object of manufacturing for the supply of India itself. That was the first intention, but of late years they have become heavy exporters of yarns to China and Japan, exporters of goods also partly to these markets too, but to other near markets as well. These exports are indicated in the Indian trade returns under the heading "Aden" for the Persian and East African markets, &c. The growth of the trade in yarns from the table I have before me is as follows (see Table, No. 2): In the year 1876–77 the exports of yarn from India to China, Japan, and other small markets, were 7,926,000 lbs., the value being equal to 367,303*l.* Last year, 1885–86, ending 31st March, which is the last complete year I have in the Indian statistics, gave 78,238,471 lbs., value of 2,755,042*l.*, and the half year ending 30th September last shows 47,922,360 lbs. I have another statement here, sup-

plied to me by a friend, which shows that for the entire year ending 31st December last, the exports amounted to nearly 100,000,000 lbs. Now that trade has all grown up in these 10 years. Its importance will be manifest when we contrast it with the English exports of yarns to all parts, say 254,346,000 lbs. for last year. The latter also has been keeping comparatively stationary while the former has been advancing so rapidly. (See Appendix IX., Table No. 5.)

2302. But you cannot distinguish in the causes of that progress between those which are due to the natural advantages of India and those which are due to the fall in the exchange?—Decidedly, I think the progress is mainly due to the difference in silver. China and Japan are upon the same basis of value, and the automatic action of the exchange immediately turns the buyer to the Bombay market, and of course when trade once goes away it is gone. You cannot get it back. You require a big inducement to bring it back, and this trade that we had in 20's yarns with these markets is actually disappearing from Lancashire.

2303. (*Sir T. Farrer.*) Is it English capital that has done it?—Native capital and English capital; chiefly native capital in Bombay; but there are large interests in Lancashire; and I would warn you in connection with figures which appear from Bombay and Manchester, in regard to this trade, that vested interests must be taken into account in the matter.

2304. (*Chairman.*) There are certain classes of cotton manufacture in which India cannot compete?—Yes, but they are going on increasing their power to produce finer yarns. The trade commenced first of all with coarse yarns and coarse goods.

2305. If I clearly understood your account of the reasons why the English manufacturer was at a disadvantage owing to the fall in silver, it was due to the fact either that through the appreciation of gold the English manufacturer was now paying more in wages, or if gold has not appreciated but silver depreciated, that the Indian manufacturer was paying less in wages. That was your account of the reason why the English manufacturer was at a disadvantage as compared with the Indian manufacturer, was it not?—Yes; the manufacturer in India continues to pay the same in rupees. I think a cardinal point in all this examination is to take in view the full position that silver still holds in the world.

2306. Yes, but I did not understand how the fact that India is getting up a trade with silver-using countries bears upon that at all. You seem to think that the fact that India trades with other countries using the same currency as herself puts her at an advantage as compared with English trade with those countries. But if the account you have just given of the reasons why the English manufacturer is at a disadvantage is correct, I do not see how that has any effect?—You see the force it has exercised in India.

2307. I perfectly understand why the Indian manufacturer is at an advantage as compared with the English manufacturer in any and every market, gold or silver, but I do not understand from your explanation why India has any special advantage in dealing with a silver-using country?—Because they are on the same basis. China and Japan are silver-standard countries like India.

2308. What has that to do with it on your theory?—Supposing a merchant in Japan has an order to place. He has been in the habit of buying from India and from England. A decline of three per cent in silver takes place. His silver price remains the same in buying from Bombay, and he must pay three per cent. more in silver to England to buy these same yarns.

2309. (*Mr. Courtney.*) It is conceded, let us say, that in consequence of the variation between gold and silver the Bombay manufacturer gets an advantage over the English manufacturer in Bombay?—Yes.

2310. It is conceded that he obtains an advantage over him in China?—Yes.

2311. Does he obtain the same advantage over him in Australia?—I will answer the question later. But

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the point I urge now is that it is silver-standard countries with which we mostly trade. Three quarters of our trade is with silver-standard countries, and these silver-standard countries have an advantage from uniformity of standard in trading with Bombay rather than England.

2312. (*Sir John Lubbock.*) You suppose that a person in Japan is going to buy a certain quantity of cotton goods, and he has his option of purchasing either in England or in India, England being on a gold basis and India on a silver basis, and let us suppose for the moment that it is the same to him whether he buys from the one or the other. Well then, you suppose the case of silver falling 3 per cent.; I understand you to argue that in that case he would naturally go and buy in Bombay?—Yes.

2313. But why should he fear silver falling?—Because silver is his money. He knows nothing of gold. These Eastern nations know nothing of gold. Silver is their standard. He can pay with silver in Bombay. 100 dollars of silver will buy his yarn from Bombay, and he would require 103 dollars to buy the same yarn from England.

2314. (*Mr. Barbour.*) Unless the English manufacturer will reduce his price by an equivalent amount?—Yes, unless the English manufacturer reduces his price. It does not tell automatically upon the English manufacturer at all.

2315. (*Sir T. Farrer.*) The reason why the Bombay manufacturer gets an advantage over the gold-using country is that his expenses have been lower or have remained the same, while those of the English manufacturer have increased. That would give the Bombay manufacturer an advantage in every market, would it not?—Yes, it does.

2316. Then there is the further question, whether the price which is paid for the article is affected by the change between silver and gold, according as the purchase is made in a silver or a gold-using country. That is an entirely different point, and I do not think we have had any answer upon that point?—I will answer the question most completely now. Certainly it would, just as it does in wheat. It would enable them to compete in gold-using countries—in every country.

2317. It would enable them to compete, but that is because the expenses are less?—Yes; and there is also the further advantage with silver countries of uniformity of standard.

2318. (*Mr. Chamberlain.*) There is another point. An Australian has got 5*l.* in gold to spend. If there is a fall in silver he can buy more cotton for the 5*l.* than before the fall. He cannot buy any more cotton in England than before the fall. The fall in silver has made no difference to the price of cotton in England, consequently the Bombay manufacturer has an advantage in gold-using countries as well as in any other, if there is a fall in silver?—I quite assent to that.

2319. (*Mr. Cohen.*) There is a further advantage it seems to me not touched upon, and that is, that in trade between silver-using countries the Bombay manufacturer is freed from that element of uncertainty against which the English manufacturer has to protect himself by recourse to the banks, which in transactions carried on for a mere margin of profit is an important element. The interposition of banks cannot be done for nothing. That must add a material element to the cost of the trade, from which the Bombay manufacturer is free because he trades in his own metal?—That is one of the strongest elements of all. I say also that the trade having set in one direction, and being upon a steady basis, it goes on firmly; the mere fluctuations from silver variations puts the English manufacturer out of count to a large extent. I have shown you the enormous advance which has taken place in the Bombay mills and in the exports of yarn from Bombay. With regard to our own yarn trade, I have run out from the English Board of Trade returns the exports of yarn to China and Japan, where we compete with these (see Appendix IX., Table No. 2).

Well, in 1876, we exported of yarn 29,000,000 lbs. The trade has varied; in 1881, 47,000,000 lbs.; in 1882, 34,000,000; and gradually coming down until last year, it was 26,000,000 lbs. This is alongside with the trade, which has developed from 7,000,000 lbs. to about 100,000,000 lbs., from Bombay to these markets. Our trade with these markets has been gradually falling.

2320. (*Chairman.*) You deduce from these figures that practically the Indian manufacturer has cut us out of the neutral silver markets of the East?—Is cutting us out. I have a memorandum here from one who has very closely studied this matter, and he is perfectly convinced that the trade in 20's yarn, which our former exports to China and Japan consisted of chiefly, is being completely annihilated. He uses that word. If our Board of Trade returns had been more detailed, it could have been brought out that the keeping up of the figures of exports of yarns from England has been mainly due to the increase in the finer counts neutralising the loss in 16/24's to a large extent. I have a list here, including 345,000 spindles formerly employed in this trade, giving details of what has happened to the various mills, some stopped, gone on to 30's, making 40's, &c. Wherever there has been capital, of course, behind these mills they have endeavoured to adapt themselves to something else (see Appendix IX., Table No. 6).

2321. How is that list of mills obtained; was it taken at random?—No, I have got every name connected with the trade, and I have had the memorandum also confirmed by very careful examination by a friend, Mr. Haworth, a great authority in the yarn trade in Manchester.

2322. So that I might summarise your evidence as regards the effect on the Lancashire trade in these silver-using markets, by saying that for the coarser fabrics Lancashire is entirely driven out of the field?—I would not say entirely driven out, but is being driven out in these near markets as regards coarse yarns and coarse goods.

2322*a*. And so far as she keeps her place at all, it is in the manufacture of the finer kinds?—I would rather put it that there is danger to Lancashire from this competition. The whole cotton trade of India in goods is still a small thing as compared with the great cotton export trade of England, and but for the exchange difficulty the enterprise of Lancashire would enable her to hold her own against the advantage of proximity. I have seen paragraphs in the newspapers say that the yarn of the Bombay mills was preferred in China and Japan, owing to its better quality. That is a great fiction.

2323. Has Lancashire been entirely struck out of the Australian market?—India does not, I believe, send cotton goods there.

2324. Communication is as easy between India and Australia as between India and Japan?—Yes. There is a trade in jute goods from Calcutta.

2325. Do you know whether the cotton goods which are in request in Australia belong chiefly to the finer kinds, or to the coarser?—I have no special knowledge of Australian markets.

2326. (*Mr. Houldsworth.*) Could you give any opinion as to South America?—No; there is no competition there. They have not got there yet. Then our trade also in goods with China and Japan, which is a very important trade, has been almost a stationary trade the last 10 years. Of course it is a small thing yet what the Bombay mills are doing in goods to China and Japan, as compared with what they are doing in yarns, but they are rapidly increasing. The English export trade from England to these markets was in the year 1876 491,000,000 yards, and last year it was 490,000,000 yards. It is practically a stationary trade; we have not increased. (See Appendix IX., Table No. 3.)

2327. (*Mr. Courtney.*) You spoke of the trade of East Africa. How far down does that go—to Zanzibar?—There are no data in the Board of Trade returns which cover these countries, except in a rough

way; under "other countries" the Board of Trade returns show a declining trade to "other countries."

2328. I meant the Bombay trade. You spoke of the Bombay trade with China, Japan, the Persian Gulf, and East Africa. How far down East Africa did you go?—I simply took the figures as given in the trade returns of the Indian Government. They simply give "Eastern Africa," along with other places to which shipments are sent. The "other countries" in our Board of Trade returns show a marked falling off, and that is accounted for by the competition of India in these markets, I quite believe, both in goods and yarns. In goods in 1883 they took 173,000,000 yards, as against 152,000,000 yards last year. In yarns 11,000,000 lbs., as against 9,000,000 lbs. (See Appendix IX., Table No. 3.) Then one other point. There are a great many rough and partial statements made with regard to the increase of the Lancashire trade. Of course as to figures, if you take a big enough average, you can show a very large increase; our trade with India has been always a rapidly increasing trade, but the last six years it was almost stationary, until the last six months, or nine months, when there has been a rapid increase. (See Table No. 4.) This increase is due to a variety of causes. There were religious restrictions with regard to marriages previously in force, and these no doubt helped to account for the dulness of the previous two years. Markets were getting bare, and an increased offtake resulted when these restrictions were removed. The improvement in exchange also during the latter half of the year kept business rolling. The last six years has seen a great development in India from the extension of railways, and an increased demand for cotton goods was to be expected from this.

2329. Are you talking of the whole cotton industry?—I am referring both to India and the whole cotton industry. I have got a statement here of the latter showing that from 1850 to 1860 there was an increase of 50 per cent. in yarns and 104 per cent. in goods, the values corresponding nearly to the same figures. In 1870 there was a slight decline in yarns, and an increase of 17 per cent. in goods, and then the next period up to 1880 an increase of 15 per cent. in yarns, and 38 per cent. in goods. (See Appendix IX., Table No. 5.)

2330. (*Sir T. Farrer.*) In quantity?—In quantity. However, the most important point of all is that the spindles in Lancashire, in place of increasing during the last three years, have decreased. We hear, of course, a great deal about the new mills and their increase, but people do not bear in mind that these are simply taking the place of older mills. Since 1884 there is 300,000 of an increase in the Oldham district, but 600,000 of a decrease elsewhere, being old spindles burned or broken up.

2331. (*Mr. Chamberlain.*) Has not the production per spindle greatly increased?—Yes, but not over that short time. The increased production of spindles has been going on over a longer time. That is not a matter of the last year only, but for many years.

2332. (*Mr. Houldsworth.*) What is your authority for the statement?—Ellison's annual review. The figures also show the progress in other places; they are as follows:—

Estimate of the number of spindles in Europe, America, and India:—

	1886.	1885.	1884.	1883.
Great Britain	42,700,000	43,000,000	43,000,000	42,000,000
Continent	22,900,000	22,750,000	22,650,000	22,500,000
United States	13,350,000	13,250,000	13,200,000	12,660,000
East Indies	2,100,000	2,000,000	1,950,000	1,700,000
	80,350,000	81,000,000	80,800,000	78,860,000

2333. (*Chairman.*) The oscillations of the trade go, broadly speaking, with the phenomenon known as general depression of trade. The Lancashire production ceased to increase to the same extent as before, just when every other industry was depressed and has begun to revive now that other industries are reviving?—Yes, there is no doubt that the con-

stant decline in prices of everything connected with the cost of a mill led very largely to the building of new mills. Promoters found room for promoting a company because they could produce at a less price per spindle, and cut in. I have no doubt the very fact of prices always falling, for a while at all events, tended to increase the competition from the new mills.

2334. That would depend, would it not, on whether the price of building a mill fell more than the price of the cotton which was produced by the mill. If speculators knew that any advantage which they might get from the cheapness of building the mill was more than compensated for by the fall in the price of the cotton which that mill was to produce, they would not be more disposed to invest their money in that way than they were before?—If there was a certain mill making five per cent. profit, and the spindles cost 25s., well, if a new mill can be put up with a smaller capital, say at a cost of 22s., there is a motive to go into the trade on the part of promoters. The extension of the trade has been very much owing to the Limited Liability Act giving promoters, who have no interest in the trade, enormous power. I have got here a list of the Oldham mills. It shows that out of 80 mills I think over 60 are at a discount. There is very few at a premium, and a few at par. The great bulk are at a very heavy discount per share. (See Appendix IX., Table No. 7.)

2335. Turning now to the question of the effect upon the export of wheat, may I ask you whether the nature of the stimulus given to the Indian wheat trade by the fall in silver differs in any respect from the stimulus given to the cotton manufacturers of Bombay?—It is practically the same, but still I do not regard the stimulation from exchange as such an important factor in the case of wheat as the enormous power of laying down wheat at the ports which the railways have given. I have examined very carefully a pamphlet published three years ago, in which, on the basis of 1s. 8d. exchange, the writer, Major Conway Gordon, showed that India would be able to compete with America. There has been a very large development, as you are aware, of railways in India, and the power which this development has given has been very great.

2336. Yes, we have that in evidence from other sources. Do you adopt the opinion that every fall of 1d. in the exchange means 1s. 6d. per quarter in the price at which Indian wheat can be laid down in England?—Yes.

2337. Could you explain exactly the mode in which the fall in the exchange produces that result?—I have told you the difficulty with which prices of goods are advanced in India. The adjustment of prices of produce in England, on the basis of foreign cost, takes a different course from what we have seen is the case with goods. In the one it is slow and difficult. In the other it is automatic and immediate. In the case of produce, the rate of exchange is simply an element of cost, and the merchant in India, when he finds that he could sell his bills at a fraction lower, without seeking for any reduction in the rupee price of the grain, at once telegraphs an offer of a cargo or cargoes at something under last price, and immediately secures a sale. India in this way dictates the price of wheat, and, as has been pointed out, every fall of 1d. in exchange means 1s. 6d. per quarter in the price at which Indian wheat can be laid down in England. I will not follow this aspect of the question further, my chief object being to point out the distinction that must be observed in the slowness and difficulty with which Eastern markets respond to enhancement of rupee prices necessary from exchange differences in the case of English goods, and the rapidity with which these exchange differences tell in the case of prices of Indian produce in England. Both are due to the comparative immobility of silver valuations which I have pointed out. In the one case silver, in a sense, disowns gold valuations as a controlling element. In the other, silver valuations remaining the same in the

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East, the altered relation of silver to gold in Europe must immediately affect the prices of Indian produce there.

2338. Then is it your opinion that if exchange suddenly began to go the other way, and from 1s. 6d. rose to 2s., exactly in the same way that it has fallen from 2s. to 1s. 6d., the Indian manufacturer would not lose with the same rapidity and certainty that the English manufacturer now loses?—He would be at a disadvantage. Of course with a rise in exchange it is automatic to the seller here too, and we find the experience of Manchester in the last six months demonstrates that most completely. The thing has been divided. Manchester is getting a portion of the improvement of exchange; Bombay gets the most of it. The manufacturer here knows that he can sell cheaper in rupees, and offers goods, and the Bombay dealer or the Calcutta dealer buys at lower rupee prices, which still mean higher prices in English values.

2339. So that really there is no distinction between the two countries in that respect?—Yes, but the great thing I wish to point out is that the fall in price breaks down our English values of wheat. It has done so.

2340. And a rise in the exchange would stop it?—Yes, of course. America is looking on watching the course of exchange, and it is simply the low price of Indian wheat that keeps down the price of American wheat.

2341. (*Mr. Birch.*) Can you tell us what proportion of the total imports Indian wheat represents in this market, because that is the question if she is to compete with other countries? Is it not the fact that out of 81,000,000 cwts. India only sends 12,000,000 cwts., while Russia, with paper money, has the same amount?—It is the immediate action of the exchange; it is automatic; it brings down the price of wheat. There is no doubt that the moment a fall in exchange takes place, while there is no change in the value of the article in India, the merchant can at once offer cheaper in England.

2342. The exchange was 1s. 7.89d. in 1881, the price was then 45.4s.; in 1884 it was 1s. 7.30d., a fall of 2 per cent. in the exchange, and the wheat was 35.8s.; so that there is a difference of 22½ per cent. against 2. Under these circumstances, can you say it dictates the market price?—No.

2343. (*Chairman.*) But is it not a fact that a source of supply, though comparatively insignificant, if cheaper than any other source, may rule prices up to a certain point?—Yes. The power of India to give wheat also is enormous. It is only, you may say, partially tapped. I believe that India will always go on producing wheat, even though exchange were to advance to the old point. I am perfectly sure in my own mind about that.

2344. (*Mr. Barbour.*) Is not an additional or extra supply of an article of food generally believed to have a more than proportionate effect on the price?—Possibly.

2345. (*Sir John Lubbock.*) When you speak of fluctuations in exchange, you mean practically fluctuations in the value of gold and silver?—Yes.

2346. You are aware that we are deputed to enquire whether those changes are due to the depreciation of silver or to the appreciation of gold, or to both those causes. I gather that your opinion is that it is due to the appreciation of gold?—Yes. But I attach more importance to the collision of the two valuations. It is the lower valuations of silver countries as rendered in sterling that have dragged down our prices in gold.

2347. If the price of silver is lower with reference to gold, it follows, does it not, that either the silver must have fallen or the gold must have risen?—Yes.

2348. Well, I gather from your evidence that you considered that it was the gold that had risen?—Yes, gold prices have fallen.

2349. Then I may take it that your opinion is that the change has been due to the appreciation of gold?—Yes. The scarcity of gold and the collision of the two valuations have driven down the prices. For

instance, I do not think that the restoration of exchange would raise prices all round in relation to the difference.

2350. Leave exchange aside for the present. There has been a change in the relative value of gold and silver. Silver is not worth so much in relation to gold?—Yes.

2351. That must either be because gold has risen in relation to silver, or silver has fallen in relation to gold?—I believe it is gold that has risen in relation to silver.

2352. Now we come to the question of why the gold has risen. Your opinion is that it has risen not so much from actual scarcity, or from increased demand, as from the conflict of the two valuations and from the discredit thrown on silver in Europe, leading European nations to look to gold only as the basis of their reserves. Do you mean that there has been a greater demand for gold in consequence of the adoption of the gold currency in European countries?—The countries have had to look to gold for the reserves chiefly; and there is an uneasy feeling in England that the reserve is too small.

2353. Then I gather that your opinion is that the appreciation of gold has arisen from the increase of demand, and not from the diminution of supply?—Yes.

2354. And you consider that that change has been injurious to commerce?—Very much so.

2355. Then we are to enquire whether it is possible to suggest any remedies within the power of the legislature or the Government. Are you prepared to suggest to the Commission any definite remedy?—I am thoroughly of the belief that an international arrangement, fixing the ratio between the two metals, would be the best.

2356. And what ratio would you adopt?—As a bi-metallist, I am not bound to any ratio, but I believe that practically we would come to 15½ to 1. Once remove all fear of further demonetisation of silver the price would gradually and permanently improve, and if European opinion pronounced itself in favour of an international arrangement, it is likely that before it was consummated the actual ratio current might not be very far from the old type.

2357. You stated in your evidence, if I understood you correctly, that a fall in silver would lead a Japanese purchaser to buy in Bombay rather than in England?—Yes.

2358. Now supposing he has 1,000 dollars, and he is going to invest that in cotton, and silver falls 3 per cent., of course in England he would get 3 per cent. less than before, because the silver has fallen 3 per cent.?—Yes.

2359. And if it has fallen 3 per cent. in Bombay, would he not also get 3 per cent. less?—It never falls at all. The Japanese takes silver to Bombay as against silver prices, which are not immediately affected. He sends his silver to England as against gold prices, which are automatically affected in relation to silver by a fall in exchange.

2360. You mean to say that if silver falls in England and not in Bombay, then it would lead to his purchasing in Bombay rather than in England?—Yes, it does not fall in Bombay; it is money.

2361. Exactly; but if it fell everywhere, it would not give him any advantage in buying in Bombay?—It is the money of India; it does not fall.

2362. If he has got silver and wants to change that into cotton, and the silver falls in England and not in India, then it is to his advantage to buy in the market where silver has not fallen rather than the market where silver has fallen?—Yes.

2363. Now you say that the power of silver-money has not been altered over the vast area of the East, and you refer to the table which has been put in by Mr. Barbour, and which shows that the fluctuations of silver have followed approximately the fluctuations in general prices?—Yes.

2364. Therefore, if silver has fallen 20 per cent., and general prices have fallen 20 per cent. in India,

there would have been no alteration of price reckoned in silver?—No.

2365. Therefore, all that you mean to say is that practically silver has followed the general course of prices?—Exactly. Of course I am taking the Indian standpoint of silver.

2366. Then in real truth silver has followed the same course in the East that it has in England. It has fallen 20 per cent. in relation to gold, but maintained the same valuation in relation to other commodities?—Silver and commodities go together; gold takes a different line.

2367. Quite so, and that has been the same in England and in Europe as it has been in the East?—But then, of course, the money there is silver, and they do not know. The point I wish to bring out is that these Eastern nations know nothing of this gold question at all; they are based upon silver. They receive silver, and they pay it away. In internal trade they never come to the touch point, as it were, to determine the value of silver in relation to gold.

2368. But still, whether they know it or not, the actual fluctuations have been in the East as in the West?—Oh, yes, in relation to gold. The object of my illustration was to show the immediate effect when a fall in silver takes place in diverting the trade of the Japanese to Bombay in place of England. Of course adjustments to a large extent come into play, as I have already said, but in the meantime he has found a new source of supply where his silver money will be no difficulty to him.

2369. Then you said that any one acquainted with the Manchester market can testify that business there is always checked when a fall in silver takes place. The fact is that the exports to India are checked, the imports from India are encouraged. When you speak of their business being checked, you mean their import from England to India is checked?—Yes, until prices adjust themselves.

2370. And, conversely, imports from India into England are encouraged?—Yes.

2371. Then you said India dictates the price of wheat. Do you consider that the 12,000,000 cwts. supplied from India to our market here affect the price of wheat more than any other 12,000,000 cwts.?—I believe that the Indian exports have affected the market very materially.

2372. No doubt you cannot import 12,000,000 cwts. of wheat without affecting the market, but do you consider that these 12,000,000 cwts. dictate the price in any sense other than that in which any other 12,000,000 cwts. would dictate the price?—In the sense in which the thing is dictatorial it is a change, arising from a change of silver. Of course there is always a keenness to sell and a difficulty to get the price and competitors in selling use everything that comes in their way. The Indian importer has an advantage, you may say, in the lower price of wheat from a fall in exchange, and he rushes into the market to secure a sale, and that brings down prices.

2373. (*Mr. Houldsworth.*) With regard to the checking of business, you said it was checked until prices had adjusted themselves. Does not that adjustment of prices pretty fairly follow the exchange?—With a fall in exchange in a foreign market, prices are not affected by mere speculation as to what will happen. I have been conducting a house abroad, and I know the difficulty of getting prices up when changes of values take place, and you cannot as a rule act very much upon mere speculation upon foreign dealers. It is only if they see a scarcity going to ensue that they will pay higher prices.

2374. Is the disturbance greater from exchange before prices adjust themselves than from any other cause which disturbs a market? For instance, cotton famine, a rise in cotton, all those disturb the prices, and the prices are supposed to adjust themselves. Is a disturbance caused by a fall in the exchange or a rise in the exchange different in character or in degree from such a disturbance as may arise in the ordinary course of business?—It is one that has come upon the

market more frequently. It is over and above the ordinary causes of variation.

2375. But is there any cause for there being a longer time before prices adjust themselves?—The money in the hands of the Bombay dealer, as it were, sinks in value.

2376. Does it take a longer time to adjust than if cotton suddenly rose or suddenly fell?—Of course, it is practically of the same nature in being a disturbance.

2377. All that you would say is that it is another cause of disturbance?—Another cause of disturbance.

2378. And that it acts and follows the same laws as other causes of disturbance?—Yes, but your knowledge of the Manchester market must have shown you that it is continually watched. It affects the market from day to day.

2379. Just as the price of cotton is watched?—Yes.

2380. (*Mr. Fremantle.*) Would you be very much against the expediency of introducing a gold standard into India?—Very much.

2381. Would you give the Commission shortly what the objections to an introduction of a gold standard into India would be?—First of all the drain on the supplies of gold would have a great effect upon Europe; then again I think it could not be carried out, it would be ineffectual; it would land India, I believe, in a double currency. It would of course be effective between traders at the ports, but as regards the internal trade of India, I do not believe it would touch it at all. If it did touch it, it would simply lead to a double and a confusing standard. And then again there is further the competition between India and China, which would be affected. India would be disadvantaged. China, remaining on the silver standard, would compete more successfully with India in tea and other things.

2382. Then you said that there would be a greater drain of gold from Europe to India if a gold standard were introduced. Would not the adoption of a gold standard bring out in part at least, the large hoards of gold that are already in India?—It might to some extent.

2383. Gold was the standard of value, I believe, in India till 1835, was it not?—I do not think it was really the standard over India.

2384. Can you say what led to the adoption of the single silver standard?—I am not acquainted with that; I cannot go into details.

2385. You said just now that a gold standard could not be introduced because it would be inconvenient in a silver-using country, but might not a gold standard be introduced with a fiduciary issue of notes as at present, and be the foundation of the currency system of India, rupees circulating as tokens to the extent of 50 rupees or so?—That would be simply bimetalism, and of a bad kind.

2386. No, because the legal tender of the token coinage would be restricted?—I think it would be.

2387. I think you said that if the price of silver went back to 42*d.*, with a dark abyss of further probable fall again before it, not only Lancashire, but the whole country would be plunged into as deep or deeper suffering than ever. Do you think that you can say that, when silver fell to 42*d.* a short time ago, and very suddenly, the country was plunged into deep suffering?—Perhaps the language was too strong, but no doubt the state of things in Lancashire in the middle of last year was very bad indeed. We were on the eve of strikes against proposed reduction of wages.

2388. And you attribute that to the fall in silver?—Yes.

2389. You are aware that in April 1878 the United States passed the Bland Act, as it is called, for the remonetisation of the silver dollar. Can you tell the Commission what the price of silver was?—The price of silver then was 54½*d.* per ounce in the London market.

2390. Now the price of silver is something like

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47*d.* per ounce, is it not, in the London market, that is, 7*d.* an ounce cheaper than it was in 1878?—Yes.

2391. Has not the result of the Bland Act been that America has coined very nearly 5,000,000*l.* sterling of silver every year since that time?—Yes.

2392. Therefore is it consonant with the facts to say that steps to be taken on the part of America and France would be sure to lead to a further depreciation in the value of silver?—There would be so much silver thrown upon the English market. The mere fact of the repeal of the Bland Bill being talked of a year ago had that effect.

2393. But if, notwithstanding that 5,000,000*l.* a year was taken out of the stock of silver in the world and coined, and has had no effect in stopping the fall, does it not show that the action of governments has very little to do with the matter?—No; I take a different view of it. With regard to the price of silver, the facts are these:—In the year 1876 silver touched 47*d.*, and it was the discussions in America, leading ultimately to the passing of the Bland Bill, that mainly led to the improvement that set in after August 1876. But when I say a further fall disorganises trade, it is not this or that point of silver that I have in view. The present rise in silver has led to a slight fall of rupee prices in India. If silver were to go back again to 42*d.*, the dealers would not pay the difference; in fact, we would have a difficulty to get up the prices to what they were when silver was down at 42*d.* It is the friction of the two valuations in these violent oscillations that brings down prices.

2394. According to that reasoning, would not a rise in the market price of silver also have a bad effect on trade?—No, it has not had this effect; the injurious effect will come if it falls back again. We find nobody suffering from a rise just now to any material extent. The advantages are all in favour of traders.

2395. (*Sir T. Farrer.*) I gather from your evidence generally that you think the effect of the fall in silver, or of the rise in gold, is to check exports from England to India, is it not?—Yes.

2396. And to stimulate imports from India into England on the whole. Have you looked at the figures for the last 10 years?—Yes.

2397. Do you find that the exports from England to India have been checked, and that the imports from India into England have been stimulated? Is it not the fact, if you look at the increase of the two trades, that there is not much difference?—Yes.

2398. Well, would not you have expected, if the fall of exchange was to have this very great influence which it is said to have, that you would have seen it in the general statistics?—The position which I take in regard to India is this: India has certainly advanced very materially in recent years, but I believe it should have advanced very much more from the development of railways that has taken place.

2399. I quite agree with you about the advantage of railways and the advance India has made, but I was speaking of the relative increase of exports and imports, and I can find in the general figures no confirmation of the theory that the fall of exchange has checked exports from England to India, or stimulated imports from India to England, whether you follow the general figures from year to year, or take the figures month by month as the falls in exchange occurred?—I believe that our exports from India have been stimulated, and that our exports to India have been checked, not absolutely, but relatively.

2400. Is there any evidence of that in the general figures given in the statistical returns?—Yes, I think there is. We have not made the progress we should have made.

2401. But I am talking of the relative increases, imports and exports of merchandise, exclusive of treasure, and I take the imports of merchandise in the years in which the fall of exchange has occurred. The great fall of exchange has taken place since the year 1875–76; taking the five years immediately before that, and the two subsequent quinquennial periods, the average imports into India were 32,000,000*l.*,

37,000,000*l.*, and 50,000,000*l.* Then the exports were 57,000,000*l.*, 62,000,000*l.* and 82,000,000*l.*; so that really there is very little difference, or what difference there is is rather in favour of the imports into India; and if you take the figures of the trade with the United Kingdom only, you will find that they come to the same thing?—This is the position I take with regard to India, that India has progressed. I have not followed out the figures you speak of, but I have taken other data, and I believe the growth of the Indian trade would have been very much greater on the old ratio than it has been. On a higher basis she would have got more rupees for her produce, and though she would have had to pay more for imports, yet from the fact that her exports of merchandise are always much greater than her imports of merchandise, the gain in rupees would have been greater than the loss, leaving a larger balance available for spending on imports.

2402. Then supposing there is an undoubted divergence of value between gold and silver. Well, that must have arisen either from the gold having risen in value or silver having fallen in value. I think it is rather your opinion that gold has risen?—Gold has risen.

2403. Supposing that this divergence has arisen from the fact that gold has appreciated, I want to know exactly how that appreciation of gold and the alteration in exchange in consequence affects imports and exports. Take the English merchant who wants to buy wheat in India. Gold has risen, consequently more rupees have to be given for a sovereign. I want you to explain to me exactly how it is that under those circumstances the alteration affects him so as to enable him to carry on his business at a greater profit?—The sovereign can buy so many more rupees, and then the rupees can buy the same quantity of crops.

2404. But is not the sovereign worth so much before the merchant in England begins to buy rupees with it, and so much more when he gets it back, after having bought his corn in India and sold it in England?—That scarcely enters into the matter of competition. The simple fact is that grain is selling at a certain price in India, and the Indian knows nothing of the change that has taken place with regard to gold. He simply has to sell his article, which he sells at the same price which he did formerly, and you can buy with the gold sovereign more of the rupees which he wants to get paid him.

2405. I think I am right in saying that the business of buying wheat in India and importing it into this country is carried on principally from England, and by capitalists from England?—Yes.

2406. They have to give a certain quantity of gold, and they buy rupees with it. With those rupees they buy wheat, and they bring that wheat back to this country?—Yes.

2407. Then the hypothesis is that gold has increased in value both against silver and against commodities?—Yes.

2408. Therefore when they give 100*l.*, they have given something which is worth much more in commodities than 100*l.* would be before?—Yes.

2409. They buy with it so many more rupees; they buy with those rupees the same quantity of corn which they got before. They get for that same quantity of corn a smaller quantity of gold than they would have got before prices fell, but that gold which they get is worth more when it comes back to England than it was before it went abroad, and is not the thing as broad as it is long?—Not at all.

2410. I should like you to explain how that is. I am overlooking all the details as to the mechanism of exchange and looking at the trade transaction?—Oh, you may put article against article, but you cannot sink the valuation. The silver of India is the instrument of price, just as the sovereign is, which you must take into account as the measure of value when you consider the thing from the English side. While the merchant in England may negotiate the transaction,

India is the real seller, and a lower silver exchange enables the wheat from India to be offered at a lower gold price as against other competing supplies. The English merchant may or may not intervene, just as he thinks it may suit him. If not bought by him, it will still come forward consigned by the Indian merchant.

2411. Then let me go on and ask you this. Trade is ultimately barter, is it not, commodity against commodity?—Yes.

2412. What governs the real price of commodities is, on the one hand, the cost of production, and, on the other hand, the demand for them?—Well, I think we differ there very materially if I am to suppose that you would attempt to gauge value apart from the monetary measure. The word price has no meaning, and, indeed, cannot be used, without reference to a monetary standard.

2413. There are very material elements, are there not, in India, quite independent of the question of exchange, which account for a large reduction in the price of Indian commodities, and especially of Indian wheat? You entirely agree with that?—I quite agree.

2414. Railways, for one thing?—Yes.

2415. The taking off of the export duty on wheat for another?—Yes.

2416. The immense reduction of freights for another?—Yes.

2417. Those are apart from exchange; reductions in actual value as exchange against all other commodities?—Yes.

2418. Consequently, whatever exchange does, those are certainly principal factors in the reduction of price?—Yes; so strong that I think these factors themselves would enable India to compete with America on the old basis of exchange.

2419. (*Mr. Courtney.*) Your main position is this, that owing to the great mass of silver in the East, and the conservative habits there, silver prices are comparatively immovable?—Yes.

2420. But the price of silver in relation to gold undergoes great change in the London market generally?—Yes.

2421. We are therefore able to get for the same quantity of gold a larger quantity of silver, and a larger quantity of the commodities which are exchanged for silver?—Yes.

2422. Well now, taking the broad view of the trade between the United Kingdom and India, has not the course of it been that we get from India a much larger valuation of commodities than we send to India?—Yes.

2423. And we have been sending from year to year bullion, to make up part of the balance?—Yes.

2424. We buy commodities that we receive from India more cheaply than before?—Yes.

2425. That is gain?—To this country, yes.

2426. We sell the commodities that we send out more cheaply?—Yes.

2427. That may be a loss?—A loss.

2428. But if we get much more than we lose, and we make up part of the balance in silver, which is cheaper, is there not, on the whole, a balance of gain to the United Kingdom?—Yes, in a sense.

2429. Whatever Manchester or Lancashire may suffer, the United Kingdom gains?—In a sense, yes, but it is not merely a matter of balance; each may gain something as against its loss, and still both be greatly worse off than if these difficulties did not exist.

2430. Well, now turn our attention to India. In consequence of the same facts, India has been able to develop a very large and increasing manufacture and export of cotton goods to the East?—Yes.

2431. Is that a gain to India?—A gain to India.

2432. And what has India as a community lost?—As against that?

2433. Yes.—Nothing, as against that individually; Lancashire has lost.

2434. But you say the United Kingdom as a whole has gained?—By cheap produce.

2435. The result is that the United Kingdom as a whole has gained?—No, I do not admit that. I said that the price of things that we export has gone down; besides, cheap Indian produce would not compensate England for the loss of her cotton manufactures.

2436. India has gained through the fact that silver has become cheaper relatively to other commodities. Why should we be discontented, when we have a gain on both sides?—It is not easy proving things off hand, but you would find a difference.

2437. I quite understand Lancashire and the Indian Government, but why should the two communities be discontented?—Of course a great many things have to come into play, the loss on Council drafts and a great many other things; loss on what is remitted for private investments; all these things would counterbalance. I believe that if silver were restored, India on the whole would gain; and England would also gain, not only as regards her trade with India, but also from the general effects of the settlement of this question.

2438. (*Mr. Cohen.*) When you say that the United Kingdom gains, you assume that we gain by the commodities that we purchase being obtained cheaper. Is that not so?—Yes.

2439. We were obliged to sell those things cheaper, and those persons in this country who produce those commodities suffer?—Yes.

2440. Well, do you assume that low prices in this country are an advantage or an evil?—Well, they may be an evil in some cases, and they are certainly an evil when due simply to monetary disturbance.

2441. Well then, if they are an evil, the United Kingdom does not gain in consequence?—Yes.

2442. You do not take it to be a proved fact either one way or the other, that low prices are an evil or an advantage?—Yes.

2443. What I want to bring out is this. Is it not an important element in the question whether low prices are an advantage or a disadvantage. If they are a disadvantage, then, of course, the creation of these low prices by the greater quantity of goods obtained from the rupee is an evil. If they are at advantage we have nothing to contend against. In seems to me, therefore, that the whole question of the advantage to the United Kingdom turns on the point whether low prices are to the mass of the people of England an advantage or a disadvantage?—They may to some extent be a disadvantage.

2444. Then you would not like to give an opinion on that?—No; I would not like to give an opinion on the general question you raise.

2445. (*Mr. Chamberlain.*) You contend that the fall in the price of silver has been a disadvantage to the manufacturer in Lancashire, and to some extent to the farmer in England?—Yes.

2446. In the case of the manufacturer in Lancashire, you say that the exports, which were rapidly developing, have received a very considerable check?—Yes.

2447. And you attribute that to the corresponding improvement in the condition of the mills and manufacturing of Bombay?—Yes, in some departments only.

2448. They have gained what Lancashire has lost?—Yes.

2449. They have been greatly extending in number and the quantity of their production, and they are also going into new manufactures?—Yes.

2450. All this has been brought about to the injury of Lancashire by the fall in silver?—Yes.

2451. And if by legislation you were to restore the old relation between silver and gold, Lancashire would recover its loss?—I would not say that. The mills are there, but they would not be stimulated as they now are.

2452. But they would gain at all events by this change?—Yes.

2453. And of course Bombay would lose?—Yes. I believe that she would still have her area for these mills going on. They are there, you know, but there

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would not be an impetus to put them down that there is now from cheap silver.

2454. But the effect of this change is to give a great stimulus to Bombay, and Bombay would lose that stimulus if that policy were adopted?—Yes.

2455. Then I ask you, do you think that the Imperial Government has a right artificially to interfere for the benefit of Lancashire, when at the same time that would be proportionately to the injury of Bombay?—She is gaining from what I hold to be an artificial arrangement. It is simply a fictitious derangement of the valuations of money. Money should measure everywhere and always the same. India is quite entitled to every advantage from natural facility and position, but I hold that this silver advantage is a fictitious one, from the derangement of the two valuations.

2456. But the effect would be, would it not, that the Imperial Government, in which India is not represented, would take a course which would injuriously affect India for the benefit of Lancashire?—It may be put that way, but still this thing has been going on to the injury of Lancashire or England, and to the advantage of India, from want of this fixed ratio.

2457. I think you agree with what I have hitherto said, but you think that the advantage is an unfair one?—An unfair one; that is it. Departing a little from the immediate point, I hold that the true relation of the metals has always been that of bearing a fixed ratio the one to the other. It is a modern thing, the want of a ratio between these two metals. The two metals form together the world's money, and we have allowed the two heaps of the world's money to diverge in a way that has never happened before, and that is producing these difficulties.

2458. (*Mr. Birch.*) Mr. Courtney asked you just now whether prices are immovable in India, and you said yes. I do not exactly know what you mean?—Well, in responding to silver valuations outside of India. There is a great mass of value in silver as the basis of the silver valuations, and you cannot easily move prices in India by any difference between the two metals.

2459. They are varied by a good and bad harvest, and by other circumstances. As to the difficulties you pointed out in exchange, I think you said you dealt with Brazil and other countries; but these differences arise with every country. In Brazil we have had the milreis worth 17*d.*, and we have had it worth 27*d.* It varies, and the merchant has to take these variations into consideration. The exchange is the basis of their operation. A varied exchange you must always be prepared for?—These are countries where paper money is in circulation. In Brazil the exchange quotations are made in inconvertible paper money, and include both the variations in that paper money in its relation to gold, and the ordinary exchange variations from the swaying of the balance of trade. In Buenos Ayres, with which I trade, exchange quotations on Europe are all made in gold and vary very little, not more at the maximum than 2½ per cent. There also, as in Brazil, inconvertible paper money is the currency, and the variations of this in relation to gold is shown in the premium quoted daily. In remitting, merchants have first to sell their paper money for gold, and then buy exchange with the proceeds. Two operations, as against one in Brazil.

2460. (*Mr. Barbour.*) I think you hold the opinion that a fall in exchange causes a fall in gold prices in England?—Yes.

2461. Have you ever considered whether it is not possible that the fall in gold prices may cause the fall in exchange—the two are connected?—Yes.

2462. Is it not possible that the fall in gold prices may cause the fall in exchange?—My practical observation of the action of the two things has been always that it is the fall in silver exchange which has produced the fall in gold prices.

2463. The fall in exchange comes first, and the fall in gold prices afterwards?—Yes.

2464. I think you said in reply to Mr. Houldsworth that the adjustment of prices when there was a fall in exchange did not differ from the adjustment of prices when there was a scarcity in cotton, or anything affecting the price of cotton. I wish to ask you whether, if there was a scarcity of cotton in two countries having the same standard, the price would not rise equally in both?—Yes.

2465. If they have different standards, and the adjustment of prices comes from a fall in exchange, prices either rise in the one country or fall in the other; the adjustment of prices is not in the same direction in the two countries, consequently one may have the advantage, and the other may have the disadvantage, and an injurious inequality of gain or loss be thus produced?—Yes. Whenever there is a drop in exchange, it seems to be the fate of the English manufacturer to bear it.

2466. With regard to the question whether India and England have gained by the fall in silver, are you of opinion that India has gained in some respects?—In some respects.

2467. And you think England has gained in some respects too?—Yes.

2468. Is it your opinion that India on the whole has gained?—No, quite the reverse.

2469. It is not your opinion that on the whole England has gained?—No.

2470. You say that India would lose if Bombay was deprived of the artificial advantage which she now gets from the fluctuation and fall in exchange?—Yes.

2471. But are you of opinion that a stable ratio between gold and silver would give India other advantages that would much more than compensate for that loss?—I think so. I have a very strong opinion as to that. I have examined the arguments of those who seem to think that the settlement of this question would be adverse to India, and I have come to the very opposite conclusion, and am very strongly of opinion that India would benefit on the whole very materially.

2472. Does not this complicated system, which is now found necessary in trade transactions between England and India, appear to you to show that the mechanism of exchange between the two countries is defective?—Yes.

2473. And I suppose it brings extra work to the banks who deal in exchange?—Yes, of course it does.

2474. I suppose they find their profit in that?—Yes.

2475. So that removal of the present evils would not be an unmixed gain, so far as regards the banks?—No, but I think they would have great gain ultimately, in the fact of being able to utilise their capital in India. Just now they are obliged to trade, when they trade in India, upon Indian capital.

2476. But people sometimes look more to the immediate advantage of the day than to any possible advantage which they might get afterwards?—Yes.

2477. You have said that the establishment of a fixed ratio between gold and silver would be a gain to India. Would you mention in what respects that gain would arise?—Well, I have examined the question in this way:—

I assume an advance of 25 per cent. in rupee exchange, taking into account in the results to India the different range of prices which would likely then prevail in Europe. I assume a probable average advance of 12½ per cent. in European prices of Indian produce, and an average advance of 5 per cent. in European prices of merchandise imported. Many articles of produce would doubtless advance much more, and some would be little affected by the change as regards the results to India, say for instance opium, but I assume these average figures as probable from what has taken place during the recent rise in exchange. There have been important advances in some articles of Indian produce, and Manchester has got some advantage from the improved exchange, a slight advance on goods for India having been established. I submit

the figures simply as an aid in judging the question in an overhead way, not dogmatically, and in view of statements that have been made as to India's interests being likely to be sacrificed by the restoration of something like the old steady rates of exchange.

	Rs.
In 1885-6 India's exports of merchandise amounted to - -	83.80.00.000
In 1885-6 India's imports of merchandise amounted to - -	51.80.00.000

	Loss. Rs.	Gain. Rs.
On Rs. 83.80.00.000 exports India, at ex. 1s. 10½d. against ex. at 1s. 6d., would lose	16.76.00.000	
As against this she would gain, from enhanced European prices, 12½ per cent.		8.38.00.000
On Rs. 51.80.00.000 imports India, at ex. 1s. 10½d. instead of 1s. 6d., would gain -		10.36.00.000
But against this she would lose, from higher European prices 5 per cent. -	2.07.20.000	
On balance of silver imported, say Rs. 11.60.56.285, she would lose at 1s. 10½d. as against 1s. 6d. -	2.32.11.257	
On balance of gold imported, say Rs. 2.75.32.303, she would gain at 1s. 10½d. as against 1s. 6d. -		55.06.460
On Government remittances she would save, by reduction of present loss, say on Rs. 18.50.00.000, at 1s. 10½d. instead of 1s. 6d. -		3.70.00.000
	21.15.31.257	22.99.06.460

Balance gain - - - Rs. 1.83.75.203

On remittances for other than Government railways and other private enterprises in which European capital is invested there would also be a saving of 25 per cent. I put no figure to this, as no data exist for doing so, but leave it to those who know India to conceive how large an addition to the gain to India would come from it.

It may be objected that the foreign investor, not India, would benefit on these private remittances, but the advantage would be immediately reflected back to India. She would make better terms for the future, and the increased profits of these enterprises would all be in India's favour—say, in the case of railways, in enabling the companies to reduce rates. It is quite proper, therefore, to class these savings as practically a gain to India.

There remains the question, Would the advance in exchange check exports from India? I do not believe that it would affect the total of India's exports to any material extent, if at all. Mr. O'Connor's memorandum, I think, demonstrates that the main cause of the increased supplies of produce from India has been the opening up of the country by roads and railways, and the smaller returns in rupees owing to advance in exchange would be largely compensated by the advance of European prices. As regards the greater part of her produce, she competes with other silver countries, and they would be under the same con-

ditions of competition as she is. As regards wheat, Chicago and New York keep just now too vigilant an eye on the course of silver and Indian exchange not to at once put up prices in response to any upward movement in them.

2478. (*Sir John Lubbock*.) You mean the Indian Government?—I am taking the thing from the standpoint of the Indian Government, because I am meeting the objections of those who think that the restoration of silver would be adverse to India.

2479. That is, the Indian Government?—I am taking India as a whole.

2480. (*Sir T. Farrer*.) If gold has appreciated, it is not only the Government which suffers, but India, which has to pay more?—Yes.

2481. (*Sir John Lubbock*.) How would there be any gain on the Council drafts?—She would not lose; she loses just now 4½ millions on Government drafts. I am taking the balance of India as a whole.

2482. It is quite clear that India as a whole would not lose?—I am taking the balance of account with India. People say, "Well, India will lose upon her "exports." I am taking that fully into account, and working it out upon that basis.

2483. But if silver went up 25 per cent., how would that affect the question of the Indian drafts, as regards India, from your point of view?—The loss would disappear.

2484. It would be there all the same. It would not show in the accounts, but India would have to pay. The Indian Government would not lose the difference, but India would?—I am taking the thing simply as a matter of account. Of course our positions, Sir John, with regard to silver, differ. You are viewing the thing from the English standpoint, and taking gold as the measure of value. India has as much right to view it from her own standpoint, taking silver as the standard of value.

2485. India has to buy 14,000,000*l.* of gold to meet her creditors here. By your hypothesis you alter the value of silver, but not the value of gold; and, so far as India is concerned, she would have to place the same value here as before?—Yes, but it would cost her fewer rupees to do so.

2486. (*Mr. Barbour*.) I suppose you admit that it is extremely difficult to draw up an exact account of what would happen supposing exchange rose?—Yes.

2487. You can only make a series of hypotheses and reason about them?—Yes.

2488. I will read you the following passage from Ricardo:—"Gold and silver having been chosen for "the general medium of commerce, they are by the "competition of commerce distributed in such proportions amongst the different countries of the "world as to accommodate themselves to the natural "traffic which would take place if no such metals "existed, and the trade between countries were "purely a system of barter." Do you agree generally with that?—Yes.

2489. The tendency of trade is to approximate to what it would be under a system of barter?—Yes, but the metals are there as the only measure of price.

2490. And no matter what the rate of exchange might be, the tendency of trade would be to approximate as nearly as possible to that natural course, commodities being exchanged for commodities?—Yes.

2491. But if you have a mechanism of exchange which is faulty, trade may be interrupted?—Yes.

2492. And if you have a good mechanism of exchange your trade will go on smoothly?—Yes.

2493. Therefore it does not matter in the long run what the ratio between gold and silver is. Provided you have a good mechanism of exchange trade will follow as a matter of course?—The great difficulty is the shifting mechanism.

2494. If you have a good mechanism of exchange trade will follow as matter of course?—Yes.

2495. (*Mr. Birch*.) You said "shifting mechanism." What is that?—The two bases of valuations are continually shifting; there is no price apart from metal.

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2496. But in all countries there is always a difference of exchange. It is always varying. You have seen in India a difference between 1s. 10½d. and 2s. 2d., have you not?—Yes, but if we had a common basis of exchange with India we would likely now see very little variation. The rapidity of communication and the action of banks in dealing in exchange tend to minimise exchange fluctuations.

2497. You spoke a short time ago about paper money in South America. Of course the real basis there is gold?—The local variation of prices in Buenos Ayres is due mainly to paper money. We have practically a uniform basis of final liquidation.

2498. Gold or silver?—Gold on the East Coast, in Brazil, or the River Plate with which I am connected.

Witness withdrew.

Adjourned till Tuesday, February 15th.

Eleventh Day.

Tuesday, 15th February 1887.

PRESENT :

THE RIGHT HON. A. J. BALFOUR, M.P., the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.
MR. J. W. BIRCH.
MR. J. CHAMBERLAIN, M.P.
MR. L. L. COHEN, M.P.
MR. L. COURTNEY, M.P.

SIR T. H. FARRER, Bart.
MR. C. W. FREMANTLE, C.B.
MR. W. H. HOULDSWORTH, M.P.
SIR JOHN LUBBOCK, Bart., M.P.

MR. GEO. H. MURRAY, *Secretary*.

Mr.
H. Waterfield,
C.B.
15 Feb. 1887.

Mr. HENRY WATERFIELD, C.B., further examined.

2499. (*Sir T. Farrer*.) I gather that you do not think that the fall in exchange has permanently increased Indian exports?—No, I can see no evidence that the increase which has taken place is due to the fall in exchange.

2500. Have not the imports into India, according to the Indian returns, increased during the fall of exchange at as great a rate as, or at a greater rate than, the exports from India?—I hand in a table which shows that up to 1883–84 the increase in the exports was a little the greater, but in the last two years the relative increase has been greater in the imports. (*See Appendix VIII. B.*)

2501. In the table you have put in, the increase of the imports into India in the 10 years is represented by 100 to 154, that of the exports by 100 to 149. There is here no evidence of special stimulation of exports, or restriction of imports?—Quite so. I have prepared these tables in such a way as to take 100 as the standard in the year 1874–75, and the figures which you mention are those shown. The imports rose from 100 to 153 in 1883–84, and the exports to 156; in the next two years imports were at 154, but exports fell back to 148 and 149. The exports, therefore, show somewhat less increase than the imports.

2502. This is, of course, in values, not in quantities?—The values in rupees.

2503. I think you have in these tables, and in all others, put the average rate of exchange for the year opposite the year?—Yes.

2504. Is not what you have said true of the trade with the United Kingdom as well as of the whole trade of India?—In the case of the trade of the United Kingdom with India, the increase in the value of the imports into India has been greater than in that of the exports from India, as will be seen from the next table. (*See Appendix VIII. C.*)

2505. (*Mr. Barbour*.) Has the opening of the canal tended to divert Indian exports to the continent, instead of their coming to England in the first instance?—That is so. In comparing the trade with years before the Suez Canal was opened, we find it necessary to treat Europe as a whole, and compare it with the United Kingdom in former years. A considerable part of the trade which used formerly to go to the United Kingdom, and then to be transferred to the continent, now goes direct to the continent.

2506. (*Sir T. Farrer*.) But the Suez Canal has

been open during the whole time, has it not, over which these returns extend?—The Suez Canal was opened in November 1869, but I have no separate returns relating to it till 1875–6. I think, however, that in the earlier years the trade passing through it was not very great, as the steamboat companies had to build ships suitable for the purpose.

2507. Then the effect of the alteration that Mr. Barbour has suggested is that the figures for the United Kingdom for the later years ought on that account to be smaller than they were in the earlier years, because some of the trade which used to be entered as for the United Kingdom now goes direct to European ports?—They would be expected to be smaller.

2508. The increase in the imports from the United Kingdom in the 10 years is represented by a rise from 100 to 147; that of the exports to the United Kingdom by 100 to 121?—The imports increased from 100 in 1874–5 to 147 in 1884–5; the exports rose to 132 in 1883–4, but fell back in 1884–5 to 121.

2509. In the case of the United Kingdom therefore, as well as in the case of the whole of the external trade from India, the trade returns give no support to the theory that the fall of exchange has checked imports from the United Kingdom, or stimulated exports to the United Kingdom?—No, none.

2510. We know that in all these cases the trade is governed by a great number of factors, but at any rate we can say that if the fall in exchange has had any effect in that direction, it must be over-powered by other factors, and be comparatively insignificant?—So it would appear.

2511. I will ask you now to turn to the English statistics. The Indian returns, I think, are all in tens of rupees, are they not, whilst the English are in £ sterling?—That is so.

2512. Therefore, comparing the recent Indian with the recent English figures, must we not bear in mind that, if the Indian figures were to be expressed in £ sterling they must be reduced, and *vice versa*, with the English figures?—Yes, that is so. When the exchange is below 2s. the rupee, the number of tens of rupees is greater than the number of £ sterling, of which they are the equivalent in value.

2513. It has been suggested that the fall in exchange has been a serious obstacle to the trade between England and India as compared with the trade between England and gold-using countries.

Can you put in any figures showing what have been the proportions of trade with India to the whole of the foreign trade of the United Kingdom from 1870 to the present time?—I have a table which I have extracted from the appendix to your own work, entitled “Free Trade versus Fair Trade.” (See Appendix VIII. D.)

2514. I may just mention that these were some figures I had prepared for the purpose of showing the comparative growth of the trade of the United Kingdom with all the different countries of the world, and I have no doubt of their accuracy. It appears, does it not, that, whereas the per-centage of the trade of India with the United Kingdom was 8·3 per cent. compared with the whole trade of the United Kingdom in 1870, and 7·7 in 1873, it was 9·9 of the whole trade of the United Kingdom in 1883?—Those figures are correct.

2515. The bulk of the trade of the United Kingdom is with gold-using countries?—Yes.

2516. And India is the chief of the silver-using countries?—Yes.

2517. Consequently the figures you have given show that the recent fall in exchange has not prevented the trade with India growing as fast as or faster than the whole of our trade with gold-using countries?—From those tables I find that the trade with India since 1874 has relatively grown faster than that with British North America, the West Indies, or the South African Colonies, but not so fast as with Australia and New Zealand; and also faster than with any foreign country except the United States, and, perhaps, Holland. The inference I should draw is that exchange has little or nothing to do with the matter.

2518. Now, we will turn to the export trade from England, which it has been suggested has been checked by the fall in exchange. Will you look to the English statistics of the last 12 years, and can you put in figures showing the gold value of silver in London in each year, the value of the exports to India, and the value of the cotton exports to India in each year?—I hand in such a table. (See Appendix VIII. E.)

2519. Do these figures show that the export trade from England to India has been checked by the fall of exchange?—No. There has during the last 12 years been a large increase in the value of the exports from England to India.

2520. The total trade, I think, from England to India was represented by 100 in 1874 and by 122 in 1885?—Yes.

2521. And of cotton, of which we have heard a great deal, the numbers were as 100 in 1874 to 134 in 1886 in quantity and 96 in value?—Yes. I may, perhaps, point out that that fall in value occurred since 1883. For the years from 1880 to 1883 the corresponding figures in value were 107, 110, and 105; therefore, up to that time there was an increase in value also.

2522. During the last year there has been one of the heaviest falls on record, nearly 2*d.* in the rupee. Do the English trade accounts show any great increase in the imports from India or decrease in the exports to India?—No, not on the whole, though in particular articles there has been a great deal of variation. Imports of raw cotton in 1886 as compared with 1885 have increased by 41 per cent. in quantity and 27 per cent. in value; tea by 18 per cent. in quantity and 15 per cent. in value; wool by 34½ per cent. in quantity and 28 per cent. in value; flax and linseed by 7 per cent. in quantity and 2 per cent. in value; and hides by 8½ per cent. in quantity, the value remaining unaltered. On the other hand, wheat fell by 9 per cent. in quantity and 13½ per cent. in value; leather by 6 per cent. in quantity and 4 per cent. in value; and rape seed by 40 per cent. in quantity and 47 per cent. in value. Turning to the exports to India, I observe in cotton piece goods an increase of 27 per cent. in the quantity and 19½ per cent. in the value; in cotton twist and yarn, an

increase of 12 per cent. in the quantity and 9 per cent. in the value; while in the value of the exports of iron and steel of all kinds there is a reduction of 7 per cent.

2523. The different articles vary according to their own different factors?—Quite so.

2524. But on the whole there is no such rule as I have suggested?—No.

2525. (*Mr. Houldsworth.*) Might I ask whether the figures of the export of bullion are included in the totals that you have given us?—No, the totals which I gave for trade are the totals of merchandise only.

2526. (*Sir T. Farrer.*) Looking to the January number of the Trade Accounts for the present year, 1887, does it not appear that the figures are as follows for 1885 and 1886 in round numbers: Imports from India in 1885, 31,900,000*l.*; in 1886, 32,100,000*l.*?—An increase of 200,000*l.*

2527. While the exports to India were in 1885, 29,300,000*l.*, and in 1886, 31,300,000*l.*, or an increase of 2,000,000*l.*?—That is so.

2528. As against the 200,000*l.* increase in the imports from India?—Yes.

2529. That does not look as if there had been any very great restriction upon exports, or any stimulation of imports?—No.

2530. (*The Chairman.*) Is the diminution of the export of wheat due to an exceptionally small harvest in India?—No, the harvest was a good one. I think it was more dependent on price.

2531. (*Sir T. Farrer.*) Complaints have been made from Lancashire that the fall in exchange has specially injured the export trade in cotton manufactures, and especially to India. You have given some figures already. Will you now turn to the first report of the Commission on the Depression of Trade, Appendix, page 143. In that there is a table giving the quantities of piece goods and of yarns exported to various countries, and the proportion the quantity exported to each country bears to the whole exports. Do we not find that in 1870 the cotton piece goods exported to India were 923,000,000 yards, and 28·4 per cent. of the whole of the exports?—Yes.

2532. Do we not find that in 1884 the number of yards of cotton piece goods exported to India was 1,791,000,000?—Yes.

2533. Or about double the actual quantity, and as regards proportion, 40·6 per cent. of the whole of the exports as compared with 28 per cent. in 1870?—That is so. The figures are taken from Messrs. Ellison's Review of the Cotton Trade for 1884.

2534. Then going to cotton yarns, of which I think we have heard even more than piece goods, do we not find that the exports to India in 1870 were 31,000,000 lbs. or 16·5 per cent. of the total exports?—Yes.

2535. Whilst in 1884 the cotton yarns exported to India were 49,000,000 lbs. and 18·1 per cent. of the whole exports?—That is so.

2536. Consequently, when it is stated that the export trade of England to India and other silver-using countries, and especially that of cotton, has suffered greatly by the fall in exchange, the facts shown by the returns do not bear out the statement, since the trade has increased very largely during the fall in exchange?—No, they do not.

2537. (*The Chairman.*) And has increased relatively more with regard to silver-using countries than it has with regard to the whole exports?—So it would appear.

2538. But still that fact has not been actually worked out in figures?—No, I have rather refrained myself from making a calculation in that way, owing to the difficulty in saying what is a gold-using and what is a silver-using country. The countries are divided by different statisticians in different ways, and therefore in the figures I have given in reply to Sir Thomas Farrer's questions, I have calculated the proportion to the general trade.

2539. (*Sir T. Farrer.*) The state of the English export trade does not, therefore, from these figures appear to call for any violent remedy, much less for

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any alteration of our currency laws, which would take from India such advantage, if any, as she may derive from her silver currency?—No, I think not. Perhaps I may mention that I was asked last time to prepare a table for the Indian trade with the silver-using countries, and I have therefore prepared this diagram showing the quantity and value of exports of Indian merchandise to the silver-using countries in the East, together with the rate of exchange.

2540. To turn back to the effect of the fall in exchange upon Indian manufacturers, it has been stated that Indian manufacturers have an advantage in competing with English manufacturers, because the fixed charges of the Indian manufacturers, being in silver, remain the same, whilst the fixed charges of the English manufacturers, being in gold, rise with the rising value of gold. For instance, I do not know whether you have seen the evidence that, whilst the English manufacturer has to pay in gold his rent, his taxes, and possibly his wages, the Indian manufacturer has to pay no more rent, wages, and taxes, and therefore has an advantage. Do you agree with that?—I think that Indian manufacturers of the coarser cotton goods have considerable advantages in competing with English manufacturers, for the China trade, for instance, in their proximity to the districts where the cotton grows, and in the cheapness of labour, and to these I should add the advantages to which you refer, in so far as it is a fact that the charges of the English manufacturers are fixed in gold. But, while I may take interest on capital, perhaps, as being so fixed, the price of the raw material, and, I suppose, also the rate of wages, must be taken as not so fixed, and, therefore, in that respect, I should say that the English manufacturer has no special advantage.

2541. At any rate, you would find it extremely difficult to ascertain what advantage, if any, to the Indian manufacturer is due to each of those factors?—Quite so.

2542. (*The Chairman.*) The contention of the witness to whom you are alluding was that wages in England had not altered with the altering value of gold. Wages in England would, I suppose, sooner or later alter if the value of gold was altered?—Yes, but they may not have so altered at present.

2543. (*Sir T. Farrer.*) It has also been suggested to the Commission that the Indian manufacturer has a further advantage from the fall of exchange in selling his goods, because in selling to a silver-using country the exchange is not altered by the fall, and because in selling to a gold-using country the buyer, for the same quantity of gold, gets a larger amount of silver, and, silver prices remaining steady, a larger quantity of cotton goods. Now I should like to ask you whether there is not a fallacy in this. The demand in either case being for a certain quantity of cotton goods, the purchaser in silver will give the same quantity of silver as before; the purchaser in gold will give a smaller quantity of gold, but, gold having risen in value, he gives a smaller quantity for the same goods, but that quantity will be the same whether he has to buy silver to purchase the cotton with or pays gold directly for the cotton?—Yes. I think you are right. The gold and silver are only measures of purchase, and the holder of gold will give the same value of gold as before, though, perhaps, a less quantity, and the gold he gives will not be affected by passing immediately through silver. If the argument were correct, there should be a large export of Indian manufactures to gold-using countries, which is not the case.

2544. It makes no difference to the gold purchaser, whether he buys his cotton direct with the gold, or whether he buys it by buying silver first, and then cotton. He gives the same quantity of gold and gets the same quantity of cotton in either case?—Yes.

2545. It is true, is it not, that the exports of cotton yarns and piece goods from India to China are increasing largely?—Yes; including Hong Kong, the exports of twist and yarn to China were 56,469,000

lbs. in 1884-5, and 68,499,000 lbs. in 1885-6; and those of piece goods were 2,657,000 yards in 1884-5, and 3,222,000 in 1885-6. The total value was 2,115,000 tens of rupees in 1884-5 and 2,443,000 in 1885-6.

2546. Now, I will ask you to turn back to the Appendix to the first report of the Depression of Trade Commission, page 143. You have already shown from that return that the export trade of Lancashire with India has increased largely during the fall in exchange. The same return contains an account of the export trade of Lancashire to China, Java, &c. Does it not appear from that return that the export from the United Kingdom to those countries of cotton piece goods had increased from 478,000,000 of yards in 1870 and 526,000,000 in 1875 to 600,000,000 in 1884?—Yes, that is correct. The trade increased even more largely up to 1881, but has declined since.

2547. And that the exports of cotton yarn to those countries had increased from 20,000,000 lbs. in 1870 and 29,000,000 in 1875 to 39,000,000 in 1884?—Yes, I find that the exports of 1884 were 14 per cent. in piece goods and 32 per cent. in yarn above those of 1875.

2548. So that, whilst India has been doing much, Lancashire has been doing more than she did before?—Yes.

2549. Then I will ask you, do these figures justify the statement that the present state of things, that is, the fall in exchange, is causing the gradual transfer of the yarn trade of China to India, that the exports from England have steadily declined since the fall of silver commenced, whilst those from India have enormously increased?—The increase of the imports from India may, indeed, be termed enormous; but it is not correct to say that the exports from England have steadily declined since the fall of silver commenced; and I think, as I have already said, that the fall in exchange is not the cause of the improvement in the Indian trade.

2550. At any rate, you would not see in these figures any reason for protecting Lancashire against India by a radical alteration of our currency system?—No; I should think it as objectionable as allowing any protection of India against Lancashire.

2551. So much for the English export trade to India. As regards the import trade from India, you have already given figures which show that, as a whole, it has not been unnaturally stimulated by the fall of exchange; but a very general impression prevails that it has been so stimulated, and especially that the fall in the price of Indian wheat caused by the exchange is ruining English, French, and American farmers. This view is supported by many authorities, and I should like to read to you what some of them have said. Let me read to you from an article of M. Laveleye in "The Contemporary Review" for May 1886. He says:—"The excessive fall in the value of silver is a new and quite special cause of suffering for the agricultural world. Baron de Soubeyran laid this matter before the French Chamber in a speech delivered on February 8, 1886, in which he shows that Indian-grown corn attains a premium of more than 20 per cent. when imported into Europe. He thus expresses himself:—'Silver is the only legal tender in India. An ingot of silver is bought in London at the current price, 46½d., sent to Calcutta, and coined at the mint there, and with the produce of the coining of this ingot you purchase corn which you forward to London or Havre. There this is worth about 13·70 frs. the hectolitre, all expenses paid. If, on the contrary, the silver ingot, instead of costing 46½d. or 170 frs. the kilogram, its present price, cost 60½d. or 220 frs. the kilogram, its real worth, the hectolitre of corn ought then to be sold in London, Antwerp, or Havre at a price varying from 18·50 frs. to 19·50 frs.; that is to say, that in all these ports it would be from 4·75 frs. to 5·50 frs. dearer than now.' " I will read you also a passage from the annual report of the Secretary

of the Treasury of the United States on the state of the finances for the year 1886:—"It is a direct consequence of the monetary dislocation that wheat of India, which there fetched 3 rupees per quintal 14 years ago, and there fetches 3 rupees per quintal to-day, can be sold in London (cost of transport apart) for as little as the gold price of 3 silver rupees of India in London to-day, a fall of 25 per cent. This fall has caused, of course, a corresponding fall in the price of English and Irish home-grown wheat in London. This lowered price of wheat in London has had to be met by a lower price of the American wheat surplus sold in London. The price of our surplus wheat determines the price of the whole wheat crop of the United States. So that the monetary dislocation has already cost our farming population, who number nearly one half the total population of the United States, an almost innumerable sum, a loss of millions upon millions of dollars every year, a loss which they will continue to suffer so long as the Congress delays to stop the silver purchase, and by that act to compel an international redress of the monetary dislocation. Another year's delay in stopping the silver purchase is the loss of remunerative prices upon another wheat crop of the United States; is another year's stimulus to India's competition for the foreign markets of our agricultural product, and a reduction of our ability to hold that market against any competition in the world (measured by a common money)." Now that is an authoritative document. I should like to ask you whether you agree with it?—I think that M. Laveleye's article omits to take account of the check in the first instance given to the exports from the East by the fall of the gold price in Europe; in my view, the fall in exchange is the counterpoise without which the trade could not be carried on at the lower gold price; but I see no benefit to the Indian trade in the low prices and low exchange. In the report of the Secretary of the Treasury in America it is said that the fall in exchange has caused the fall in the gold price of wheat, which appears to me to involve a confusion of cause and effect.

2552. You think that the fall in the gold price of wheat, and of silver, is the first thing, and the fall in Indian exchange a consequence?—I do.

2553. I should like to ask you parenthetically whether there is any reason for supposing that Indian wheat rules the English market more than American, or Russian, or English wheat?—I presume that the price is regulated by the wheat which can be brought into the market most cheaply in sufficient quantity; but I am quite unable to say from what country it comes.

2554. And probably nobody can say?—I should think not.

2555. When was the Indian export duty on wheat taken off?—It was taken off at the beginning of 1873.

2556. Was it taken off since this fall in exchange, or just before?—No, just before.

2557. It was 5 per cent., I think?—It was 3 annas on the maund of 82 lbs.; which is about 4 annas a cwt. The average declared value of wheat exported from India in 1881-2 and 1882-3 seems to have been about 4 rupees 6 annas a cwt.; so that the duty was at that time nearly 6 per cent.

2558. Do not the figures which you have given, and which are given in Mr. O'Connor's paper, show that there have been real causes at work in India, and in the cost of carriage on the ocean, which account for increase in Indian exports, and for the fall in gold prices?—To a great extent it is so.

2559. I should like to take one illustration from Mr. O'Connor's paper. Does he not say that between 1872-3 and 1885-6 the gold price of Indian wheat in London fell 33·7 per cent.?—Yes.

2560. And that in the same year the silver price of Indian wheat in Calcutta had fallen 26 per cent.?—Yes.

2561. The fall in the silver price in Calcutta must

have been independent of any fall in exchange?—Yes.

2562. Does not Mr. O'Connor further tell us that since 1870 the sea freight of wheat from Calcutta to London had fallen upwards of 50 per cent., making a further reduction in the gold price of wheat in London of 10 per cent. or over?—Yes, I think he puts it at 10 to 13 per cent. since 1873.

2563. These reductions in real cost of production fully account for this reduction of the gold price in London, do they not?—I think Mr. O'Connor himself does not admit that they fully account for it. They certainly account for a great deal.

2564. If you add the figures, they more than account for it?—Yes; but I have a paper of his in which he says that the reduction in the gold price greatly exceeds the reduction in the silver price plus the reduction in the cost of freight.

2565. Well, upon those figures, which I have taken from his paper, the difficulty is to understand how, taking into consideration the fall of exchange, the reduction of the gold price in London was not still greater than it was?—Yes, but you are speaking of only one article.

2566. (Mr. Barbour.) In 1870 was there practically no wheat trade between England and India?—No, there was no trade worth mentioning until two or three years after the Suez Canal was opened, about 1873.

2567. (Sir T. Farrer.) But you agree entirely that there have been real causes at work for the reduction of the cost of wheat in India, which will account for a very large part of the reduction of prices?—For a very large part, yes.

2568. I will not trouble the Commission with further details of prices, which are difficult and delicate matters to deal with, but I will put into your hands the following extract from a paper from a trustworthy source, with comments upon it, which seems to me to illustrate very well the way in which merchants are in the habit of attributing to the mere mechanism of exchange rises and falls in value which are really due to more substantial causes:

"In June 1881 and June 1886 the price of Cawnpore wheat in Calcutta was Rs. 2·9 per maund, but the rate of freight was 60s. a ton in 1881 and 30s. in 1886, a difference of 30s. a ton, or 6s. 6d. a quarter.

"The cost of wheat in London was 42s. a quarter in 1881 and 31s. 6d. in 1886, or 10s. 6d. a quarter difference. Of this difference freights as shown above concede 6s. 6d. a quarter, which leaves 4s. a quarter to be contributed by the fall in exchange and other contingencies.

"In June 1881 the rate of exchanges was about 1s. 7½d. per rupee three months' sight, and in 1886 about 1s. 5¼d. per rupee three months' sight, which represents a reduction of 3s. 6d. a quarter, leaving only about 6d. a quarter unaccounted for, and this further reduction is probably owing to the decline in the price of gunny bags.

"From this it will be seen that in Calcutta prices were at the same level in 1881 and 1886, and yet apart from freight influences, we were able to sell in London at 3s. 6d. less money."

The above is the statement made by the merchant, and his inference seems to be that the Indian exporter has made a profit by the alteration in exchange and has by that means lowered London prices.

It is an interesting case and worth examining. The observation that 6s. 6d. out of the difference in price is due to lowering of freights is very suggestive.

The fall in price in London has been 10s. 6d. a quarter, but the merchant who knows the facts does not state that the whole of this is due to exchange. He attributes two thirds of this to diminution in the cost of production and transit, leaving only 3s. 6d. out of the 10s. 6d. to be accounted for by exchange. But we have the means of tracing this a little further. Mr. O'Connor in the paper above referred to tells us that between 1879 and 1886 the charge for grain on the East Indian Railway between Cawnpore and Cal-

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cutta (684 miles) had fallen from 177 pies per maund (82 lbs.) per mile to 149 pies, which would amount to about 2s. a quarter. In this way 2s. out of the 3s. 6d. is accounted for without reference to exchange, and it may well be that more than 2s. would be thus accounted for.

But for this diminution in the cost of Indian production, the Calcutta price would have been so much the higher and the English price would have been higher also. As it is, the diminution in the cost of production in India, coupled with the diminution in freights, very nearly accounts for the whole reduction in English prices. The figures do not correspond precisely with Mr. O'Connor's figures either in dates or in amounts, and they are not so striking, but they confirm the general conclusion that the fall in the price of Indian wheat is to be accounted for in the main, if not altogether, by diminution in the cost of producing and carrying wheat, and not at all by gold.

I will ask you to say whether you have any observations to make on this statement?—I think that the increased supply caused by the development of the country through the opening of railways, and the reduction in the cost of transport, have had a material effect on the prices of commodities in Europe; but I do not think that they fully account for the fall in those gold prices, or that the fact should be ignored that the supply of gold has not increased in proportion to the increased demands made upon it in recent years.

2569. I will only ask you further with regard to wheat exports from India, as I have asked you with respect to cotton goods, whether there is anything in these facts to justify either the American Government or European economists in demanding an alteration of our currency system in order to prevent the Indian ryot from competing with European and American farmers?—No, I think not.

2570. Now I want to ask you some rather more theoretical questions with regard to the effect of the fall in exchange. Do you think it possible that an alteration in the par of exchange can make a permanent change in values or in real prices, or can permanently and seriously affect trade?—Taking silver and gold money to be merely a means of conveniently effecting an exchange between the commodities of one nation or person and those of another, I do not think that an alteration in the par of exchange between silver and gold can permanently affect the real prices of commodities or the trade.

2571. For instance, in the case of a country possessing an inconvertible paper currency, a large over-issue would alter nominal prices and nominal exchange seriously, but the change would be nominal only?—Nominal.

2572. There has, I believe, been lately a large fall in the Russian exchange. Has that fall affected trade seriously, or stimulated the export of Russian wheat?—I have no knowledge of the special circumstances which affect our trade with Russia, but I see from the returns that the exports from the United Kingdom to Russia fell continuously from 1880 to 1885, in which year their value was as low as in 1877, and only 57 per cent. of the value of such exports in 1880. The imports of wheat from Russia into England show remarkable fluctuations, and I can see no ground for thinking that they have been affected by exchange. Taking the later years, the number of hundredweights received was in 1880, 2,880,000; 1881, 4,047,000; 1882, 9,576,000; 1883, 13,347,000; 1884, 5,402,000; 1885, 11,976,000; and 1886, 3,710,000.

2573. Then is there not this difference between a mere alteration in the par of exchange caused by depreciation of the coinage or an over-issue of paper money on the one hand, and the alteration caused by a fall in the value of silver, on the other, such as has recently occurred in America and Europe,—that in the former case the only change would be a change in nominal prices, whilst in the latter case silver would go from London or America to the East, and would have to be paid for by increased exports from the East?—Yes, I think so.

2574. You have, I think, put in a table showing in detail the imports of silver into India. Have these imports corresponded with the fall in exchange, that is, have the larger imports of silver universally or generally accompanied or followed falls in exchange?—I have not been able to see that there is any special agreement in that way. I hand in a table for the last two years showing month by month the exports of silver to India, and I have put, side by side, the sale of bills by the Secretary of State, and it appears to me that the quantity of bills which the Secretary of State puts on the market governs the amount of silver exported to India to a great extent. I have also added the monthly exports of cotton manufactures to India, as this may be useful to the Commission for the purpose of comparison. (See Appendix VIII. F.)

2575. Council bills or telegraphic transfers are an order for payment of silver in India, are they not?—Yes, payment of coined rupees.

2576. Consequently, for the purpose of remittance, they answer the same purpose as silver, and they are cheaper than silver?—Yes, the freight and mintage is saved.

2577. Consequently, for the mere purpose of remittance, council bills will be preferred to silver *ceteris paribus*?—Quite so.

2578. But if silver falls in value in London, that is to say, if it will fetch a smaller amount of commodities in London than it will buy in Calcutta, the silver will go from London to Calcutta, council bills or no council bills?—If the silver is in London, it will go.

2579. That is to say, if the silver has become superabundant in London or America, so that it will purchase less in London or America than it will in India, it will go to India, council bills or no council bills?—Yes, the silver will go to the place where it is most valuable.

2580. Consequently, we ought to find some increased export of silver to India when there has been a great fall in exchange, council bills or no council bills?—Yes, that would be the natural tendency.

2581. (Mr. Cohen.) Would it not be the case that the holders of silver would not sell it at that price; they would hold it back?—You are speaking of holders of silver in London?

2582. Yes?—I think our experience is that they must sell; that they very seldom can hold back, and they sell, therefore, under the price of the bills, and thereby force down the exchange.

2583. (The Chairman.) Any increase of the export of silver to India would, of course, be immediately followed by, in fact, would depend on, a corresponding increase of exports from India?—Yes, it must be paid for.

2584. (Sir T. Farrer.) I gather that in one case, 1876-7, 1877-8, a heavy fall in silver was accompanied by a large export of silver to India, and a rise of prices, but that there was another cause at work, namely, the diminution in the council bills on India?—Silver did go to the East to an exceptionally large amount in 1876 and 1877; and prices in India rose from 1876 to 1879, since which time, particularly in the last year or two, there has been a tendency to fall. I think, however, that the prices were greatly affected by the famine in 1877 and 1878, and that the exports of silver were mainly stimulated by the reduction in the Secretary of State's drawings; during the three months from February to April 1876, in the height of the usual export season, only 53 lakhs of bills were sold, and again in February and March 1877, the sales only amounted to 126½ lakhs.

2585. The council bills so affect the whole concern that it is very difficult to trace the real cause of the export of silver?—I think so. The amount is so large that it to a great extent rules the market for the moment.

2586. (Mr. Barbour.) You mean, rules the market for the time being?—For the time being.

2587. You do not think on the whole it has very

much effect?—No, in the course of a series of years it passes away.

2588. (*Sir T. Farrer.*) And it would not prevent silver going to India, if silver itself were more valuable in India than in London?—No. The silver would go out, though, perhaps, not at the moment.

2589. I understand that in 1883-4, 1884-5, and 1885-6 there were large exports of silver to India, probably from the same cause?—In 1882 and 1883 the exports amounted to about 6,000,000 annually, in 1884 they rose to 7,500,000, and in 1885 were 7,000,000.

2590. Now will you turn to what happened this last year. There was a heavy fall in the gold value of silver, amounting to something like 2*d.* in the rupee. If this meant that silver had fallen in real value in London, you would expect a large export of silver to India as the consequence? As a matter of fact, the exports of silver from this country, according to our accounts last year, were much less than in the preceding years, when there had been no great fall in exchange?—Yes.

2591. From the paper you have put in it appears that there was no specially large import of silver into India in 1886; that the largest import took place in February before the fall in exchange, and that the amount of silver sent to India was two millions less than in the preceding year when there was no fall in exchange, and that, taking council bills and silver together, the remittances to India were half a million less than in the preceding year?—About that.

2592. Consequently the fall in exchange had apparently no effect last year in sending silver to India? Yes.

2593. This goes far, does it not, to support your view that the alteration in exchange is due to a rise in the purchasing power of gold, rather than to a fall in the value of silver?—I think it does.

2594. You know what Mr. Bagehot has said on this subject. Has he ever given countenance to such a notion as is expressed in the extracts I read to you?—Mr. Bagehot held that the fall in exchange would give a temporary, but only a temporary, encouragement to exports from India to England, and discouragement to exports from England to India.

2595. Did he not say, practically, that the immediate effect of a fall in the gold price of silver, arising from a superabundance of silver, would be an export of silver to the East, followed by a slight rise of prices in the East, and that then the trade would go on as usual?—Yes; he held that the fall in exchange would enable merchants to export goods from India with greater profit, while the exporter of goods from England would be at a disadvantage, that a void would thus be created in India which would have to be filled by silver, the consequence of which would be an increase of prices in India and a general improvement of trade resulting from this increase of prices, and that, when that rise of prices should take place, the encouragement to exports from India and discouragement of imports into India would cease, and all trade would go on as it did when it was at its old value.

2596. Did he not say that silver would under such circumstances go to the East, in consequence of an alteration in the balance of trade causing an outflow of bullion in the usual well-known way?—Yes, that was his view.

2597. And did not the report of the Silver Committee supplement this, by pointing out that under such circumstances silver would go to the East, whatever might be the balance of trade?—Yes; the Select Committee pointed out that, even if there should be no excess of exports over the amount needed to pay for the imports and the Government payments in England, it did not follow that the import of silver would absolutely cease, since the demand for silver might displace some of the other articles imported.

2598. But this operation, whether it took place in the one way or the other, would be temporary only; silver would go at once, and then, the new level being reached, trade would go on as before. That was the

view of Mr. Bagehot and the Silver Committee?—Yes; and, as it appears to me, the level is so quickly reached that the increase of exports due to a fall in exchange does not perceptibly affect the transactions of the year in which the fall occurs.

2599. (*Mr. Barbour.*) Is the level reached in practice by a rise in silver prices, or a fall in gold prices?—By a fall in gold prices.

2600. And Mr. Bagehot did not contemplate a fall in gold prices?—No; I think that was the point he overlooked.

2601. (*Sir T. Farrer.*) And did not what Mr. Bagehot predicted actually happen? Did not silver go to the East in 1877-8?—Silver did go to the East in an exceptionally large amount in those two years.

2602. Indian prices are very difficult to follow, are they not? They rise very slowly. India is so large a country that it is very difficult to form any general conclusion as to a rise of prices in India?—It is very difficult, owing to the very large extent of the country, and the extent to which the particular districts are affected by the seasons.

2603. Then Mr. Bagehot gave no countenance to the doctrine that a permanent alteration in the real value of Indian goods, or of English goods, or of the trade between the two countries, could be the consequence of an alteration in the relative values of gold and silver?—No, he stated distinctly that the effect on trade would be temporary; and that the rise of prices in India, which he anticipated, would not do more than withdraw the exceptional encouragement which the fall in exchange had given.

2604. Mr. Bagehot did not apprehend what has since happened, namely, continued falls in the exchange unaccompanied by any specially large imports of silver into India; by any rise of Indian prices; or by any special increase of exports from or diminution of imports into India?—No, he thought that the disturbance to the trade would be corrected by a rise of prices in India, not by a fall of prices in Europe.

2605. The facts that I have stated in that last question are, according to your evidence, the present real facts of the case, are they not?—Yes, I think so.

2606. (*Mr. Birch.*) Prices have not gone up in India?—No, prices of exported goods have slightly fallen; but speaking generally, they have been nearly stationary, as far as we can judge, but, as I said just now, it is very difficult to decide on the movement of prices in India.

2607. (*Mr. Barbour.*) Do you think prices have fallen permanently in India, or that the recent fall is due to the seasons?—I think it is probably due to the unusually large number of good seasons.

2608. (*Sir T. Farrer.*) Do not these circumstances point to a cause or causes entirely different from that which Mr. Bagehot and the committee of 1876 were contemplating, namely, a superabundance of silver only; and do they not rather point to an increase in the purchasing power of gold?—Yes, I think so. Mr. Bagehot saw that gold might, perhaps, have risen in price, but he thought this was to be attributed merely to the cycle of prices, and would soon pass away, and that it must not be mistaken for appreciation due to diminished production, or, I presume he would have added had it occurred to him, to increased demand.

2609. If this were the case, that is, if the relation of silver to commodities remained the same, whilst the relation of gold both to silver and to commodities were altered, there would no longer be an inducement to export silver to India upon the fall of exchange?—No.

2610. In that case the exporting English merchant would receive for a certain quantity of goods, say, 10 rupees, which he would change into 15*s.*, where before the fall in exchange he would have received 1*l.* for the same goods. But the 15*s.* will be worth as much as the 1*l.* was before?—Yes, in commodities.

2611. And the exporting Indian merchant would receive only 15*s.* for his goods where he received 1*l.*

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before, but his 15s. will buy 10 rupees just as the 1l. did before?—Quite so.

2612. Assuming this to have been the case, it would account for a fall in exchange unaccompanied by the consequences to trade foretold in 1876?—Yes, the consequences to trade.

2613. Now, then, we will go to the causes of the increased purchasing power of gold. The supposed increase might arise, might it not, either from a scarcity of gold, or from the production at reduced cost of the commodities against which gold is exchanged?—Yes; assuming the cost of production to be reduced in the case of all the commodities in respect of which the purchasing power of gold had been increased.

2614. That is to say, supposing the purchasing power of gold to have been increased generally?—Quite so, that is my meaning.

2615. But the purchasing power of gold against a particular commodity may be increased by the production at a diminished cost of that particular commodity?—Yes, by quite another series of factors.

2616. Suppose, for instance, that gold has become scarcer, whilst all other commodities, silver included, remain constant, then, putting aside the question of fixed charges, the only change will be that a smaller quantity of gold is given and received by the merchants, the number of rupees and the quantity of goods remaining the same as before. In this case the only change will be a change in nominal gold prices, and except to this extent trade will not be affected?—Quite so.

2617. But the increase in the purchasing power of gold may be due to another cause or other causes, namely, to the production or delivery at reduced cost of the commodities against which gold is measured. Suppose, for example, that the only commodity we are concerned with is wheat. Then, if the cost of the carriage of wheat from India to England is reduced, other things remaining the same, the gold price of Indian wheat in England will fall, and the silver price of wheat in India will remain constant?—Yes.

2618. If in addition the cost of carriage and shipment in India is reduced, silver remaining constant, the silver price of wheat at the ports in India will fall, and the gold price of wheat in England will fall still more than in the case previously supposed?—Yes.

2619. Whilst, if at the same time silver becomes more abundant in proportion to the demand, wheat and silver will fall together as against gold, silver prices in India will remain the same, and the fall in the gold price of wheat, though really due to reduction in the cost of conveyance of the wheat, may appear or partly appear in the exchange as a reduction in the gold value of silver?—Yes; I think that your reasoning is correct in theory.

2620. This, of course, is a hypothetical case, and the other cases of the superabundance of silver and of the scarcity of gold are hypothetical cases, and probably no one of them comprises the whole of the actual case. But do they not illustrate the truth that the essential factors, the *veræ causæ*, in the reduction of real prices or values are, as you have stated, reductions in the cost of production, or rather, in this case, of transport, and not in the relative values of silver and gold?—By real prices or values of the exported commodities, I understand you to mean the amount of commodities received in exchange, as distinguished from the measure of the commodities expressed in money; and in this sense I agree with your opinion, from a trading point of view, since any rise in the value of gold may be discounted as equally affecting commodities given and received. But the object with which I have been desired to give evidence before the Commission is to represent the position of the people of India acting through the Government, and in their case that which they receive in exchange for their surplus commodities is the use of English capital and English agency, for which interest on debt, pensions,

&c. have to be paid. And to ascertain the real price paid for these, it is essential to include as a factor the rise in the value of gold which may have been caused by the additional demand thrown upon it in recent years having exceeded the supply.

2621. Quite so, but then I would ask you a further question or two. If the rise in the purchasing power of gold has arisen from a scarcity of gold, which did not exist when the English capital was advanced, then it is true, no doubt, that the increased purchasing power of gold has thrown a burden, in the shape of interest, on India greater than that which it undertook when the capital of her debt was advanced?—Yes.

2622. But, supposing that the increased purchasing power of gold is due, not to a scarcity of gold, but to a reduction in the cost of production of commodities, then India, if she produces these commodities with a smaller amount of effort or labour than before, will, to that extent, be relieved from any additional charge incurred by her in paying the interest on her gold debt at its increased value, is that not so?—Yes, if she is producing the commodities with less labour, she will get some return for the increase in the price of gold which she has to pay.

2623. She will have a larger amount of commodities to pay; but she will have for the same labour a larger amount of commodities out of which to pay them?—Assuming your hypothesis.

2624. If, for instance, wheat was the only commodity produced in India, and if by means of the railways which have been made with borrowed capital the cost of the delivery of wheat were reduced as much as gold has risen in value, India would incur no additional burden finding as much wheat as would be necessary to pay the increased interest on her gold debt?—If I follow your question, it is not only the cost of delivery of wheat, but the cost of cultivation that must be reduced correspondingly.

2625. I put them together?—Supposing the cost of cultivation and delivery were reduced, that would be so.

2626. Wheat is only one of many things which India sends us in order to pay the interest on her debt?—Yes.

2627. But they are mostly agricultural produce, are they not?—A very large portion.

2628. And, therefore, largely dependent on the railways which have been made with borrowed money?—Yes.

2629. They are also, are they not, largely dependent on special causes, such as good or bad harvests?—Yes, very largely.

2630. Consequently, before determining that the increased value of the gold debt is an increased burden on India, would it not be necessary, under the above circumstances, to see in the case of each article how much of that increased value is due to gold itself, and how much to the increased abundance of the articles themselves in which India pays her debt?—I do not think it would be possible to do so.

2631. It therefore needs a good deal of examination, before we can conclude that an increase in the value of the interest which India has to pay on her gold debt is a real increase of the burden on the people of India?—It requires careful examination, undoubtedly.

2632. And when it is considered that the debt was in a large measure incurred for the purpose, and with the result, of increasing those facilities of production and transport which have helped to raise the value of gold, our doubts concerning the increase of the burden, or the injustice of that increase, are strengthened?—The extent of the increase of the burden; I do not wish to say anything about the injustice of it.

2633. At any rate, so far as the real burden of the debt is concerned as distinguished from the inconvenience to the Government?—Exactly.

2634. I want to ask you this further question with regard to the real burden of the debt. How does the position of India as a gold debtor differ from that of other gold debtors, Australia, for instance? These

colonies have a gold debt varying from 150,000,000*l.* to 200,000,000*l.*, yearly increasing. If gold rises in value, the interest on their debt continues to increase in value, does it not?—Your inquiry is with reference to the Government?

2635. I am not speaking of the inconvenience to the Government, I am speaking of the burden upon the people of India?—The essential difference in that case seems to me to be that, in the case which you have taken of Australia, it is a gold-producing country, and therefore, if a rise occurs in the value of gold in Europe, there is a corresponding improvement caused by that in the value of her commodities that she exports.

2636. Therefore Australia would be in the same position as India when she has more wheat to pay her debt with?—No, the same quantity of gold which Australia produces rises in value relatively to all prices in Australia which are gold prices.

2637. Do not let us take Australia. Let us take a colony which does not produce gold, say Canada, which has a large gold debt in this country. In what respect is the increase of the gold a greater burden upon India than it is upon Canada?—As a country I do not know that it is differently affected by it. The commodities will have to be valued in either case.

2638. (*Mr. Cohen.*) Would it not be a greater burden to India than to Canada, if since the time that the loan is raised for India there had been a fall in silver, because the money remitted to India would be at that time in a currency which had not become depreciated, but which subsequently became depreciated; therefore, if at the time the loan was raised the rupee was at 1*s.* 10*d.*, and it has fallen to 1*s.* 6*d.* meantime, there would be that increase of burden on the inhabitants of India which the inhabitants of Canada had not been subjected to, because they had not been subjected to the intermediary depression in the currency. Is that not the case?—I understood Sir Thomas Farrer's point to be that of the value of the commodities.

2639. (*Sir T. Farrer.*) Assume this, that the whole alteration in value between gold and silver is due, not to the fall in silver, but to an increase in the purchasing power of gold, then in that case I want to know in what respect is India, putting aside the inconvenience to the Government and looking only to the burden on the country, worse off than Canada?—I cannot admit in this context the distinction which your question seems to imply between the Government and the inhabitants of a country; in India, for instance, the inhabitants have to pay taxes sufficient to meet the charge for the remittance of the annual sterling sum which the Government on their behalf have contracted to pay. But, taking your view, I agree that on the same amount of debt the purely economical burden would be as much enhanced in Canada as in India, because both countries would have to give a larger amount of commodities in order to pay their gold debts. Though the purely economical effect, however, may be the same, the actual effect on the community is widely different, since in the case of Canada the additional burden caused by the increasing weight of the gold debt falls directly on and is distributed over the producers and manufacturers of articles of export without the intervention of the Government; while in India it falls primarily on the Government, who are then compelled to distribute it over the people by continual additions to the taxes, which, as I have already said, in India is considered a political evil of the gravest character.

2640. (*Mr. Chamberlain.*) If the phenomenon with which we have to deal is solely the appreciation of gold, then every payment, every contract to pay gold, becomes increasingly burdensome to the payer, and in equal proportion whether the country is a silver-using or a gold-using country?—Yes, I understood that was Sir Thomas Farrer's question.

2641. (*Mr. Cohen.*) I asked whether the burden is not increased by the appreciation of gold as compared with silver, whether it does not fall with increasing

force upon the Indian who has nothing but silver to pay in. That is really the point?—I think on Sir Thomas Farrer's hypothesis it is not so, for I understood him to put the question to me that, if the quantity of the commodities which the country exports, is in both cases increased in proportion with the appreciation of gold, the payer in India is not worse off than the payer in Canada, and I think that is so.

2642. (*Sir T. Farrer.*) The only difference between Canada and India is this, that in Canada the commodities which Canada has to pay as interest are paid for gold directly. In India silver comes in as an intermediary?—Yes.

2643. But both pay in commodities, and with respect to Canada as well as India gold has appreciated, and consequently a larger quantity of commodities are needed, both in the one and the other, to pay the interest on the gold debt?—Yes, I think so. I think that agrees with what I have said before, that in my opinion the measure in which we make the payment is economically of small importance.

2644. Then, to turn to the evidence that you have given us; may we take it that the appendix you have put in gives in Table I. (old and fixed contracts) those of the annual sterling payments on each of which the Indian Government has to bear the whole burden of the fall, without any compensation in the shape of the reduced prices of what it buys?—That is the intention as far as I was able to make the calculation.

2645. And that Table II. (new or current contracts) gives those of the annual sterling payments on which the Indian Government gains in reduction of price what it loses in exchange?—Not exactly that. It includes this, but I have put into Table II. payments which may be said to be at the option of the Government. I will take the line relating to stores for India. The Government of India has it in its power to buy more or less stores, and therefore, although it has made no contract, I include that charge because it may be said that it is open to it to reduce the charge for exchange by buying less stores. Again, I have put into this table the remittance transactions, which are payments that fluctuate with the rate of exchange, and therefore there can be said to be no further loss on that account in consequence of a fall.

2646. But on the whole it is Table I. which gives us the burden of which the Indian Government complain?—Yes.

2647. And I think the largest amount was 26,217,811 of rupees in 1885–86, from which has to be deducted 722,474 gain on current contracts, making 25,495,337 as the whole loss in the last year. Is not that so?—Yes, but the last year is a very exceptional one, as I pointed out in the last paragraph of my memorandum.

2648. It is the fifth line from the bottom of Table I. that gives us the figures of the actual loss which has been incurred by the fall since the time at which the table commences. It is the fifth line at the bottom that gives it for all years?—That is so. That is the total excess caused by the fall in exchange.

2649. (*Mr. Barbour.*) Do you mean the excess of remittance, or the actual loss to the Government of India?—That is the actual loss to the Government of India caused by the fall in exchange, as distinguished from that which is caused by an increase of their gold payments.

2650. (*Sir T. Farrer.*) I was going to ask you if you could put in a table giving year by year, from 1874–75, the net excess of rupees caused by the fall in exchange over what would have been required if the rate of 1874–75 had continued, and also a column converting this excess into sterling at the rate of the year, and also a column showing what the Budget estimate of the charge on this amount had been. That will show us what the fluctuations had been, and it will show us how far the finance minister of India was able to estimate the loss?—Yes, I have prepared the two tables as you desired; but I must point out that, in converting the excess payment of rupees under exchange into sterling, I think the Com-

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mission must take care not to be misled, for the burden on the Government of India is the number of rupees that it has to pay, not what that would have fetched in gold. (*See Appendix VIII. G. & H.*)

2651. That is according to one hypothesis or the other; but giving it in sterling conveys a clearer meaning to the minds of Englishmen?—Possibly; but I think it would be a misleading one, that is my point.

2652. With regard to this loss by exchange, is it not possible to insure against this charge either by a high estimate or by retaining a balance or otherwise? Why is it more difficult to deal with, than any other extraordinary expenditure, such as war or famine?—It is not more difficult to deal with this loss than with a loss by war or famine, if the loss by war or famine were one that it was impossible for the Government of India to foresee or prevent, if the charge were quite beyond its own control, and if it were liable to recur year after year after the financial arrangements had been made; but, in order to provide for such a loss as this, it would be necessary for the Budget every year to show a surplus of two or three millions, and I presume that no Government could go on showing that surplus year after year, and then, if a fall did not occur, refusing to reduce taxation for fear such a fall might occur in another year.

2653. But it would never need to show a surplus of two or three millions, because there has never been a fall in exchange in one year causing loss to that extent?—In the first in the two that I mentioned, in the year 1885–56, there was a deficiency of 740,000 tens of rupees through a fall in exchange, apart altogether from any increase of expenditure. The next year the Government of India provided for a further fall from 1s. 7d. to 1s. 6d., which is approximately 10 or 11 millions of rupees, and immediately afterwards, before August, the rate had fallen to 1s. 4½d., which would have involved, had that fall remained, a further charge of something like 1,750,000 tens of rupees.

2654. I quite understand that there is a great inconvenience about it, but I want to know whether, as compared with the inconvenience of other sudden and unforeseen calls, it is not somewhat exaggerated in the statement of the Government of India?—My point is that it is continually liable to recur, but is quite uncertain.

2655. Can you give the additional expenditure in each year since 1874–5 by the following causes, most of which must have been unforeseen: famine, Afghan War, military preparations on the North-west Frontier, and the Burmah annexation?—I will put in such a paper. (*See Appendix VIII. K.*)

2656. I should like to ask you some questions concerning what you have told us about the revenue and expenditure of India. You have given an account of what we may call the elastic as distinguished from the fixed revenue, and it is with the elastic revenue only that I propose to deal at present. First of all there is excise. That is fixed upon drugs and spirits, is it not?—Yes.

2657. Well there has been in that, I think, looking to the financial statements, a steady growth from 2½ millions in 1875–76 to 4 millions in 1885–86?—Yes.

2658. And that is not to be attributed to the increase of intemperance, but to improvement in the condition of the people and to better administration?—And to the fact that the rates have been nearly doubled.

2659. In what year?—Great attention has been paid to the administration, and the rates have been continually increased, not by fresh legislation, but by orders given from time to time with the view of bringing up the excise duty to correspond with the import duty. I asked the Revenue Secretary yesterday if he could tell me to what extent taxation had increased, and he said that he thought that, within the last 10 years or so, the rates had been nearly doubled.

2660. The financial statement shows a very gradual and steady increase throughout the decade?—It has been gradual and throughout India, not confined to one district or province.

2661. Then I want to ask you with regard to the license tax and provincial cesses, which I think are called the famine insurance taxes?—Yes, part of the provincial rates, and also the license tax was so called, but not the present assessed taxes. The present assessed taxes are not for famine insurance. The income tax that was put on 12 months ago is not in any way directly connected with that charge.

2662. The license tax has been altered within the last year, has it?—Yes.

2663. It was a tax originally put on for the purpose of famine insurance?—It was so.

2664. It was a tax on persons engaged in professions, commerce, or trade?—Yes.

2665. And it was at the time it was put on proposed to extend it to the professional and official classes?—Yes, which has now been done. It has been made a general income tax for all India.

2666. Is it now applied to famine insurance?—No, not directly; but it is applied to increase the revenues of India generally, and out of this revenue the Government of India puts by a million and a half for famine insurance.

2667. It is a general tax, and not ear-marked for any particular purpose?—Yes, it is a general tax.

2668. Sir John Strachey says:—"Of all the taxes that are levied in India, there will be none more just or necessary than this, when, as I trust, may soon happen, similar taxation has been extended to the official and professional classes." That has been done?—Yes, that has now been done.

2669. The richer classes have been very loud in their complaints at different times, have they not, and have prevailed on the Government to repeal the income tax, while good financiers have always wished to put on a tax of this kind?—I am not prepared to say that the tax has been repealed in consequence of the outcry of the richer classes.

2670. (*Mr. Courtney.*) To which income tax are you referring?—The income tax that expired in 1874, when Lord Northbrook declined to renew it.

2671. The income tax repealed by Sir Charles Trevelyan did not go so low?—Yes, the minimum income taxed then was 500 rupees a year, as it is at present.

2672. (*Mr. Fremantle.*) When was the present income tax put on the richer classes?—About 12 months ago.

2673. (*Sir T. Farrer.*) I should like to read to you a passage from Sir John Strachey's book on the subject:—"The income tax as it existed in 1870–71 yielded, at the rate of 3½ per cent. on income, comes exceeding 500 rupees, a little more than 2,000,000*l.*, and with the better administration which could be secured, it would certainly, at that rate, now yield very much more. A large sum could, however, without difficulty, or the slightest political danger, be raised, in case of necessity, by the simple plan of increasing the existing licence tax and cesses. By doubling their present rate, which would still not bring them up to the rate at which the income tax was on more than one occasion levied, and extending their incidence to the official and professional classes in the manner that has been proposed, we should obtain at least 2,500,000*l.*, or 1,500,000*l.* more than the revenue now derived from these sources." Do you agree with that?—No, I cannot agree in that, nor do I think that Sir John Strachey would now maintain that opinion. Certainly, the Government at present hold that to increase the income tax, unless it were inevitable, would be a very grave mistake; and it is almost an essential part of the income tax, as applied to India, that it should, if possible, remain at the same rate and assessment for some time. It is the continual reopening of the assessments, and altering the amount which the natives have to pay, which leads to the great objection on their part to such a tax.

2674. What is obtained from it now?—About 1,399,000*l.*, after deducting the cost of collection.

2675. From the income tax as distinguished from the cesses?—Yes.

2676. And that is now part of the general revenue, and not ear-marked for the purpose of famine insurance?—Yes.

2677. (*Mr. Barbour.*) Do you think that the present provincial rates could be safely or justly doubled for general purposes?—No, certainly not.

2678. (*Sir T. Farrer.*) But the difficulty of raising it would not be that it is ear-marked for a particular purpose, but the difficulty generally of raising taxation of that kind?—The provincial rates include a great deal of money which is of the nature of our local rates, and which can only be applied to local purposes. The provincial rates which are available for the general revenue form a very small portion of the amount received under that head.

2679. But the 1,399,000*l.* was from the income tax?—That was from the income tax, but I should like to qualify that figure. 1,399,000*l.* is the net budget estimate, but it included the receipts from the railway companies, which the Secretary of State decided could not be taxed, except as regards surplus profits, and therefore the amount will be smaller than that.

2680. Then I should like to ask you with regard to stamps on legal and commercial documents. There has been a steady increase in them from 2,800,000*l.* in 1876 to 3,600,000 in 1886?—Yes.

2681. Those, I suppose, are a very fair legitimate tax?—On that point opinions differ very much. There has been a great outcry in the Indian papers and in the Indian Legislative Council on different occasions as to the propriety of the Government making income out of the administration of justice.

2682. (*Mr. Barbour.*) Are you aware that the Chief Justice of the High Court of Calcutta objected to the high taxation levied in the form of court fees and shown in the accounts under the head of stamps?—He did. He wrote a very strong minute.

2683. (*Sir T. Farrer.*) I see in the statistical abstract a steady increase from forests, from 700,000*l.* in 1876 to 1,000,000 in 1885, but I suppose that is gross, not net?—The net increase is from 277,000*l.* in 1875–76 to 411,000*l.* in 1886–87, an increase of only 134,000 in 11 years.

2684. Then in registration I see there is a steady increase in the income from 200,000*l.* in 1876 to 300,000*l.* in 1885. That is a tax, is it not, on all documents affecting the title to property?—On all documents which are registered. It is not imposed for the purpose of taxation. The net receipt was 51,000*l.* in 1875–76 and 119,000*l.* in 1886–87.

2685. (*Mr. Barbour.*) In many cases the registration is compulsory, is it not?—It is compulsory in many cases. Speaking generally, all documents affecting immovable property worth more than 100 rupees (except wills), and certain documents affecting personal property, must be registered. In other cases registration is voluntary.

2686. (*Sir T. Farrer.*) With regard to that Sir John Strachey says it might be raised by 500,000*l.* or more:—These are his words: “This is one of the best suggestions yet made for adding to the revenue; there is complete evidence to show that it could be collected without dissatisfaction, and that no important objection of principle to it exists”?—I cannot say that there would be no objection in principle, and certainly it would be long before it would produce so much as 500,000*l.*, or anything like it, net.

2687. (*Mr. Barbour.*) These documents which are registered, besides the registration fee, pay a pretty heavy stamp duty, do they not?—Yes, I believe so, and that no doubt forms an objection to the increase.

2688. (*Sir T. Farrer.*) Then salt is the next. Upon that the duties were equalised and reduced in 1882, were they not?—Yes.

2689. And something like 1,000,000*l.* was taken

off, was it not?—It was more than 1,400,000*l.* which was taken off at that time.

2690. Notwithstanding that, it has continued to increase up to the last year, I think?—It is continually increasing, slowly but gradually.

2691. And I see that with regard to this Sir John Strachey says: “If these anticipations should be fulfilled, the Government will have in its hands a financial engine of immense power; for it will be able, for the purpose of meeting any serious emergency, to obtain temporarily, by a small increase of duty, a large increase of revenue, and this almost without the people being conscious that any addition has been made to their burdens”?—Yes, the salt revenue on its reduced scale is an engine of very great power for the resources of the Government of India, in a case of emergency; but the duty could not be increased without causing, more than in almost any other case, a feeling of hardship throughout the mass of the people in India, and I have no doubt that any increase of the duty would somewhat check the consumption.

2692. It would touch the very poor?—It would touch the very poor. I find that the revenue in 1885–86 was almost exactly the same as in 1876–77, the consumption having increased from about 26 million to 31 million maunds.

2693. Has there been any steady fall in regard to opium?—There has been a much smaller income for the last year or two, but that is in a considerable degree due to the increase of charge owing to the mode in which the opium revenue is realised. The Indian Government pay for the cultivation and manufacture, and fix beforehand the amount of opium which they will sell by auction. They announce each summer the amount which they will sell in the following calendar year, month by month.

2694. Are their expenses in proportion to the extent of the crop, not of the sale?—Yes.

2695. Consequently, if there is a very large crop and very heavy expenses, that will reduce the net revenue from opium for the year?—Quite so.

2696. So that the revenue falls with a very good crop?—Yes, for the year.

2697. But then there is a stock in hand for subsequent years?—There is a stock in hand.

2698. (*Mr. Barbour.*) These remarks apply to the Bengal opium, not to the Malwa?—Yes, the Bengal opium; but the prices this year are remarkably low, from no reason connected with the Indian crop. There has been a recent treaty made with China, which enables the Chinese Government to receive about three and a half times as much duty at the port as they did before, instead of a large part of the duties being levied by the local authorities piecemeal as the opium was carried up the country; and no doubt the merchants feel that they will have really to pay much more than they did before, and they therefore give a less price in purchasing the opium.

2699. Has that treaty arrangement come into force yet, practically?—It came into force on the 1st of this month, but was not in operation when the last sales were effected of which we have heard. The “additional article” to the Chefoo Convention of 1876, that is, the article under which the new arrangement is provided for, was signed on the 18th of July 1885.

2700. So that if it had not come into force then, and is coming into force hereafter, you may probably expect a further fall in price?—Yes, possibly.

2701. (*Sir T. Farrer.*) Can you give the price per chest of Bengal opium in each year since the present arrangement was made; the arrangement, I mean, under which a fixed quantity is sold each year?—The following table shows the prices of Bengal opium per chest since the practice was begun of announcing beforehand the amount of opium to be sold in each month of the ensuing year:—

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Calendar Years.	Number of Chests sold.	Highest price.	Lowest price.	Average price.
1880	56,400	Rs. 1,466	Rs. 1,212	Rs. 1,326
1881	56,400	1,443	1,230	1,351
1882	56,400	1,341	1,112	1,240
1883	55,150	1,339	1,168	1,240
1884	47,550	1,457	1,181	1,287
1885	49,992	1,349	1,186	1,255
1886	54,000	1,237	1,050	1,156

2702. (*Mr. Courtney.*) Does the substitution of the one tax for the many taxes make a greater tax on the whole or the same?—I do not think it is possible to tell that exactly, because no one knows what was paid. The Chinese Government agree that, if they take this full tax, they will exempt the chest of opium from further duty as it goes up country.

2703. There was a good deal of discussion as to the amount which should be paid as compensation for the Likin duties?—Yes.

2704. Was it intended that it should be a just equivalent?—It was intended to be a fair equivalent, I believe, for the rights of the Chinese Government.

2705. If it is a fair equivalent, there would be no permanent effect on the price of opium sold?—The amount now payable is probably in excess of the amount supposed to have been paid formerly, but the levy of the full duty at the port would prevent a great deal of the smuggling of the opium up-country without paying the dues.

2706. There are compensations against that?—Yes, no doubt.

2707. But the market is at present agitated by uncertainty as to what the effect will be?—I think possibly that may be one reason for the reduced price.

2708. But the substituted duty was intended to be an exact equivalent?—Yes, for the rights of the Government; but it was expected that they would ensure the receipt of a sum which previously was uncertain.

2709. And therefore it was intended that it should have no permanent effect?—I presume that that was the intention.

2710. (*Sir T. Farrer.*) And subject to any change that may have occurred since the arrangement was made under which the Government sell a fixed quantity in the year, the income from opium has been tolerably steady, has it not?—The net income has fallen in the last six years from 8,451,000*l.* to 6,577,000*l.*

2711. Is that in consequence of the extra expenses incurred by greater crop?—About one-third of the reduction since 1880–81 in the net receipts is due to additional charge; but the expenses included in the Budget of 1886–87 were not so heavy as in either of the two previous years.

2712. (*Mr. Birch.*) But is it not a fact that the production of opium is enormously increasing in China itself?—I believe it is. In 1880 the sales in Calcutta were rather larger than at present; 56,400 against 54,000 chests.

2713. (*Mr. Barbour.*) You do not expect the opium revenue to increase, do you?—No.

2714. You are rather afraid of its falling off?—Yes, I am afraid that that may be the effect of the increased production in China.

2715. (*Mr. Courtney.*) That 8,451,000*l.* with which you started was a considerable increase on previous years?—It had risen rather rapidly in the previous three years.

2716. (*Sir T. Farrer.*) The Customs were largely reduced in 1880–81 by something about 1½ millions?—Yes; about 1,150,000*l.*

2717. Turning to the expenditure, I see you put the increase of military expenditure in India over that of 1876–77 at about 1½ millions. I observe that in Sir A. Colvin's financial statement it is stated that 2,827,000*l.* is the increase due to the army during the

current year, and that 463,200*l.* is the increased political expenditure caused by the complications of 1885–86, and that, but for Burmah and the North-west Frontier, the surplus would have been 400,000*l.* He puts the increase for this year arising from military expenditure at a considerably larger sum than the increase you have given upon the military expenditure of 1876–77?—Sir A. Colvin's statement is open to a little misconstruction in that matter, unless you examine the figures very closely. The figures which you are quoting, from paragraph 20 of his statement, refer to the exceptional increase in 1885–86, not to the permanent increase shown in the current year.

2718. I see in a letter from the Indian Government of February 1886, which was laid before Parliament, that they put the permanent excess of the expenses of the North-west Frontier at over 2,000,000*l.*?—In speaking of the permanent military increase, Sir A. Colvin's figures are an addition to the expenditure in India of 1,127,000*l.* in 1886–87 (paragraph 37 of his statement), and 657,000*l.*, which is deferred to a later date (paragraph 36); so that 1,784,000*l.* represents the permanent increase of military expenditure in India, which is made up to about 2,000,000*l.* if the additional charges for expenditure in England are included.

2719. Will you hand in this table of the revenue and expenditure?—I will do so. It might answer a good many of the questions. (*See Appendix VIII. L. M.*)

2720. The Burmese expenditure will, I suppose, be very much larger than was estimated?—Yes.

2721. If you get into any difficulties with China, it would be as bad a thing as the North-west Frontier?—I think the extra expenditure for Burmah is likely to be 1,100,000*l.* this year.

2722. To return to the debt. What were the principles which governed borrowing in gold or silver?—The principle of the Government of India was to borrow in silver, in the currency of the country, whenever they could; but in a time of great difficulty in India, owing, for instance, to a war or famine, when money had to be raised promptly, it was impossible to raise it in silver. In that case they borrowed in gold, but they always endeavoured to keep down the gold debt as much as possible, so as to retain as a reserve the power of borrowing in sterling.

2723. There are objections, are there not, to borrowing by the Government in India through the Government in London?—Yes, on account of the addition to the gold payments; and also, if the Government were to borrow in London on every occasion, for public works and such purposes which are not absolutely matters of necessity, they would be using up their reserve, and their credit in London would then become worse.

2724. But is not the effect on their credit very much the same when they borrowed silver in India? Did not the money really go from London?—No doubt the money went from London, but the price of the sterling debt is maintained at a much higher rate if the stock is not increased too rapidly.

2725. They both of them fall upon the Indian Government, and both of them must to that extent impair the credit of the Indian Government?—Yes, but, as was pointed out the other day, the stock available for trustee investments stands much higher than the rupee debt, though in either case it is the credit of the Government of India.

2726. But the credit of the Government of India would not be more diminished by borrowing in London than by borrowing in Calcutta?—Not the credit of the Government of India, perhaps, but the value of the sterling securities would.

2727. Can you give any figures or memorandum showing how the credit of the Indian Government in England and in India has progressed during the last 10 years or upwards?—I hand in a table for the purpose (*see Appendix VIII. N.*)

2728. (*Mr. Barbour.*) You said just now that, when the Government borrowed in India, the money went

from this country; did the whole of the money go?—No, only a portion.

2729. (*Mr. Courtney.*) About what proportion?—It has never been possible to say exactly, because it is subscribed through the banks, and the ratio cannot be accurately told; but the Government of India about three years ago, in 1884, when evidence was given before the Select Committee on Indian Railways, held that perhaps 1 million tens of rupees might be annually subscribed in India from local capital. But, if the Government raised a public works loan of $2\frac{1}{2}$ or $3\frac{1}{2}$ million tens of rupees, the extra $1\frac{1}{2}$ or $2\frac{1}{2}$ millions would come from England.

2730. (*Mr. Birch.*) Two thirds from England?—It depends on the amount of the loan. What they held was that only about 1 million could be raised from local subscriptions.

2731. (*Mr. Courtney.*) Has the rate of interest in the London market been habitually below that in Calcutta?—Yes, assuming the same relation between the gold and the silver.

2732. No doubt; but, whatever that relation may be at the moment, you can borrow more cheaply in London than you can in Calcutta?—Yes.

2733. Just as the Government of New South Wales can borrow more cheaply in London than in Sydney?—Yes.

2734. The Government of New South Wales habitually borrows in London?—Yes.

2735. So that a portion of the debt may go back to Sydney; but it makes the bulk of its debt in London?—Yes.

2736. And thinks that economical, because it can borrow more cheaply?—Yes.

2737. And, if there is the fact that trustees can invest in the debt created here, that is an additional inducement to borrow here?—Yes.

2738. Now, why has there not always been the same inducement, leaving out of question the relation between silver and gold, to the Government of India to borrow in London?—I think the objection has always been the uncertainty what the rate of interest that it would have to pay in future years would be. There is no doubt that the rate of interest it pays at the moment, if it then terminated its arrangement, would be cheaper in London than in Calcutta; but, if it borrows at 4 per cent. in Calcutta and at $3\frac{1}{2}$ per cent. in London, it may happen that the number of rupees which it will have to send home in a few years afterwards will be $4\frac{1}{2}$ per cent. on the amount that was received.

2739. I said, putting out of question the fluctuation between the gold and silver, leaving that out of account?—Then, I think, a further reason is the importance of encouraging local capitalists as much as possible. The natives of India will not subscribe to a loan raised in London, as a rule.

2740. But is it economically desirable for the Government of India to borrow more dearly in Calcutta, because it thereby enlists native capitalists?—I think that there is a political advantage of great moment in the natives of the country being holders of their own debt, and not feeling that it is a foreign debt on which they must pay their interest.

2741. But a considerable portion is actually subscribed in London, comes from London, even when it is nominally raised in Calcutta?—Yes, a considerable proportion comes out from London.

2742. And the differences between the ruling rates in London and Calcutta were such that that must always be the case?—I should think so.

2743. (*Mr. Cohen.*) Is it not the fact that no loans can be raised in London for India without consent of Parliament, although we can raise loans for Crown colonies and other self-governing colonies?—We cannot raise loans in London without the consent of Parliament.

2744. But you can raise money in India without coming to Parliament?—Yes. Parliament has never limited the powers of the Government of India to raise debt in India.

2745. (*Sir T. Farrer.*) The reduction of the debt of which you spoke has arisen from carrying over what was formerly the general debt to the account of productive works. You say debt has not been paid off?—For purposes of account, the debt has been divided into two portions; one is the debt raised for public works, and the other is the debt raised for other purposes. It seldom, probably never, can happen that the amount of debt raised in any one year for public works will exactly agree with the amount spent for public works, and the practice is to transfer every year from the ordinary debt to the public works debt the sum corresponding to the capital expenditure on public works during the year.

2746. And in that way the ordinary debt has been largely reduced, and the debt for public works is increased?—Yes; if the Government lays out 3 millions in public works, and provides $2\frac{1}{2}$ millions of that sum from loan (which is added to the ordinary debt), and the other 500,000*l.* from revenue, say, from the famine insurance grant, and then transfers 3 millions from the ordinary to the public works portion of the debt, there is really a reduction of the ordinary debt by half a million. Hence, the reduction of ordinary debt is due to the fact that a good deal of money has been spent from revenue on the construction of public works, and a corresponding sum transferred from the ordinary to the public works portion of the debt.

2747. That is, you expend revenue on capital account?—Yes.

2748. And you treat that as reduction of debt?—Quite so.

2749. (*Mr. Barbour.*) These public works do not always return the full rate of interest on the capital expended?—No. Up to 1884 the Government made a point of not borrowing money for public works, that is to say, not allowing public works to be constructed out of borrowed money, unless there was a reasonable probability that the return would exceed the rate of interest, but they have always in recent years allowed revenue to be spent; when the Government could afford it, on works which were calculated to be of utility, and especially to provide an assurance against famine, whether they would pay fully the interest charge or not.

2750. (*Sir T. Farrer.*) But on the whole they are beginning to pay very well, are they not?—They have very much improved in late years. The railways in particular have largely improved.

2751. And are improving still, subject to the unproductive railways?—Yes, quite so; but the extra charge for unproductive railways has so much increased in the last year or two, owing to the military railways, that the net charge in the Budget for 1886–87 exceeds 1,700,000 tens of rupees.

2752. Is this statement of Sir John Strachey correct, or is it modified by what has since happened. He says (page 102):—“India has now obtained works “to the value of 142,000,000*l.*, which produce a gross “income of 15,500,000*l.*, and (excluding interest “charges on capital) a net income of 7,000,000*l.*, and “consequently yield a return of $4\frac{3}{4}$ per cent. on the “capital outlay, which pays all interest except a present net residual yearly charge on the State of “195,000*l.*, or less than 2 per cent.” besides being a benefit to the country, which Sir John Strachey puts roughly at 40,000,000*l.* a year?—I think that probably in that calculation Sir John Strachey was speaking solely of those which had been constructed as productive works, and that he omitted the unproductive works which are now debited to the railway account. You will see, by referring to the top of page 100, that this is the case.

2753. He says (page 45) that “the general result “is that the average rate of gross interest charge on “the whole Indian debt has fallen from 4·6 in 1869–70 “to 3·8 in 1880–81, or about $\frac{3}{4}$ per cent.” and “further reductions may be anticipated”?—In that calculation no account was taken of the fall in exchange. He treated the sterling expenditure as only

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so many tens of rupees, as was the practice at that time, the Exchange charge being entered separately.

2754. I do not think he does, because I think he speaks of those yearly contracts as improvident contracts in which an agreement was made to pay the debtors in England in gold?—Yes, but that is in another part of the book. The figures which are now shown as the net charge on the railway revenue account are in 1878–79, in tens of rupees, 2,076,000; in 1879–80, 1,571,000; in 1880–81, 1,044,000; in 1881–82, 286,000; in 1882–83, 1,306,000; 1883–84, 305,000; 1884–85, 1,051,000; 1885–86, 782,000; and in the Budget for 1886–87, 1,722,000.

2755. I would ask you what are the famine and insurance expenses. I cannot understand exactly what those are. 1,500,000*l.* were set aside to pay famine and insurance expenses; then how is that 1,500,000*l.* applied?—In the first place it is applied to the relief of famine during the year.

2756. But that accounts for a very small part of it; now how is the rest of it spent?—The next object to which it was devoted under the arrangement that was made in 1881–82, when it began to be entered in the account in this way, was that half of it, 750,000*l.*, might be spent on the construction of works calculated to protect the country against famine.

2757. That is to say, upon useful productive works?—No, it was not allowed to be spent on a work merely because it would be useful, and would pay 4 per cent. It was only to be spent on works that went through districts where famine was likely to occur, and where the effect of the railway would be either to throw grain in time of famine into the country, or, in the case of a canal, to irrigate the country and so protect it against famine.

2758. Still, on the whole, these would be railways for the general benefit of the country?—For the general benefit of the country, but not necessarily of a directly remunerative character.

2759. Still they are useful productive works?—I suppose every railway in India must be useful in some way.

2760. Then it would seem, would it not, that the taxes originally imposed for the purposes of famine insurance are now become general taxes, and that the purposes to which they are applied are really useful general purposes?—The Government of India, in principle, still would hold itself bound to spend 1,500,000*l.*, either in the manner that I have been describing, in actual famine relief, or in the construction of works, or in the reduction of debt; but in carrying into effect the policy of continually raising debt for the construction of railways, it would have been absurd to have with one hand paid off debt and with the other borrowed, and therefore the balance is taken as part of the loan for the year.

2761. (*Mr. Barbour.*) I think that special provision of 1,500,000*l.* will disappear in the coming year?—It will practically be entirely taken to meet the charge for railways being constructed.

2762. Because the Government of India in its present position cannot afford, as it were, to pay that insurance premium any longer?—Yes.

2763. (*Sir T. Farrer.*) In fact the tax has become a general tax, and the proceeds are treated as general revenue?—No, I am not prepared to admit that that is the case. The Government of India have agreed with the Secretary of State that they will do so this year as an exceptional arrangement, rather than impose fresh taxation, till they see what their financial position is, but they do not hold themselves entitled to take it as general revenue in the same manner that they take any other part of their annual income.

2764. I should like to read to you a sentence from a letter from the Government of India, dated the 26th January 1886. It is one of the letters in which they press some alteration of the currency, or at any rate some large measure, upon the Treasury for the purpose of meeting the difficulties arising, in their opinion, from the loss by exchange: “The position

“of the public revenues is very peculiar, not merely
“from the habits of the people, and their strong
“aversion to change, which is more specially ex-
“hibited to new forms of taxation, but likewise
“from the character of the Government, which is in
“the hands of foreigners, who hold all the principal
“administrative offices, and form so large a part of
“the army. The impatience of new taxation which
“would have to be borne wholly as a consequence of
“the foreign rule imposed on the country, and virtually
“to meet additions to charges arising outside of the
“country, would constitute a political danger, the
“real magnitude of which it is to be feared is not at
“all appreciated by persons who have no knowledge
“of, or concern in, the Government of India, but
“which those responsible for that Government have
“long regarded as of the most serious order.” You
are no doubt aware of that statement? And now I
will ask you to compare with it the following state-
ment from Sir John Strachey’s book. Sir John
Strachey says (page 356): “But although new forms of
“taxation may be difficult to devise, it would be a
“great error to suppose that the limits of possible
“taxation have been nearly reached in India. The
“country is, beyond a doubt, one of the most lightly
“taxed in the world, and there is not only no founda-
“tion for the assertion that taxation has of late years
“been increasing, but, on the contrary, it has posi-
“tively been reduced.” Then he says, at page 374:
“The general conclusions which seem to be established
“are these: first, that the existing revenue is so
“prosperous, and its main sources so certainly in-
“creasing in productiveness, that there is no reason
“to suppose that recourse to new and untried methods
“of taxation will become necessary; secondly, that
“there would be little difficulty, in case of necessity,
“in almost immediately increasing the revenue
“yielded by existing and other taxes of a little
“objectionable nature, to the extent of at least
“2,000,000*l.* a year; and thirdly, that if a much
“larger sum than any which could be provided by
“such means, or by the growth of existing revenues,
“should be required in consequence of some great
“financial catastrophe, the income of the State
“could certainly be increased by several millions a
“year without injury to the country; but that before
“any measures were taken in such a view the whole
“question of taxation in Bengal should be re-con-
“sidered, with the object of placing on that province
“that fair share of the public burdens which it now
“fails to bear.” I would ask you whether you agree
with these statements?—I think I may say at once
that the position has completely changed since that
book was written. At that time there was, excluding
charges for war and frontier railways, which Sir John
Strachey put aside as not recurring, an estimated
surplus exceeding 5 millions. The position last year
was that there was a deficit of 2,891,000*l.*, and that
the Government has been able only to provide a
surplus this year of 182,000*l.*, which was immediately
swept away by the fall in exchange. The circum-
stances of the country seem to me to have entirely
changed, both as regards the expected increase of
revenue, and as regards the actual increase of ex-
penditure, even if the charges connected with the
Afghan War be set aside as exceptional.

2765. Do you mean that circumstances have oc-
curred which have thrown additional and unexpected
expenses upon the Government, or that the productive
powers of the country, the foundation of all this taxa-
tion, have become less?—The net receipt from one
important source of revenue, the opium, has greatly
diminished. The revenue under the steadily pro-
ductive heads of stamps and excise appears to have
nearly attained its maximum, and the expenditure
under the head of exchange has been enormously in-
creased since Sir John Strachey’s book was written.
I will prepare a memorandum on the subject. (*See
Appendix VIII. O.*)

2766. He speaks very strongly about the exchange.
There is in his book a chapter upon it?—Yes, there

is; but I do not think he contemplated the exchange falling to 1s. 4½d. in four or five years from that time.

2767. If I understand the general purport of your evidence about the revenue and expenditure, it is this, that in the 10 years which you take there has been an increase of expenditure of 3,000,000*l.* and of revenue of 6,000,000*l.* That is to say, there has been an increased surplus of 3,000,000*l.*?—An increase of 6,000,000*l.* in net revenue, and an increase of 3½ millions in net expenditure.

2768. And during those 10 years there has been, first and last, a very heavy loss by exchange, though not so heavy at first as it is at present?—Yes.

2769. There is, if you include 1874, which comes immediately before the time you have referred to, an extra expenditure of 15,000,000*l.* on famine, I think?—In the ten years from 1877–8 to 1886–7 the payments for famine relief and insurance were just about 15,000,000*l.*; if you go back to 1874–5 you must add 5,000,000*l.* more.

2770. There has also during that time been an expenditure of about 18,000,000*l.* on the Afghan war?—About 17,500,000*l.* net, of which, however, the British Government paid 6,000,000*l.*

2771. India has been provided with railway and other productive works, at a cost of 142,000,000*l.*?—That is the amount spent from the time when railways and canals were first constructed by the Government in India to the date of the publication of Sir John Strachey's book. The capital outlay may now be taken at above 190,000,000*l.*

2772. And during the last 10 years there has been a reduction of taxation by 2½ millions, balanced by an imposition of taxation to the extent of about 2,000,000*l.*?—Yes, approximately.

2773. And India has got, in addition, a great number of railways which pay their expenses and add enormously to the wealth and productive power of the country?—They can hardly be said to pay their expenses directly, as they are estimated to be now costing about 1½ millions a year, but they unquestionably have enormously increased the productive power of the country.

2774. Do not you think that is a very good record for any country, and one that reflects great credit on its financial administration?—Yes, I do.

2775. I think you did not make a point of the discouragement of private investments in Indian commercial undertakings? Can you give any notion of the amount of capital invested in such undertakings as cotton mills, jute mills, &c. in India during the last 10 years or upwards? And whether it is English or Indian capital?—I am afraid that I cannot give at all a complete answer to that question. From the statistical tables prepared in India I have extracted statements, which I hand in, giving the number of mills, looms, spindles, and hands employed in the cotton and jute manufacturing industries, as far as they are known, from 1876–7 to 1884–5; and also a statement of the Joint Stock Companies registered and working in British India in March 1885. The paid-up capital of 696 such companies was about 20,636,000 tens of rupees, but I am unable to say how far this was English or Indian capital. (See Appendix VIII P. & Q.)

2776. (*Mr. Fremantle.*) Have you formed any opinion as to the expediency of introducing a gold standard into India?—Yes, I think it would not be at all desirable.

2777. Was not gold the standard of value in India till 1835?—Yes, it was not till 1835 that gold ceased to be legal tender in India. Silver has always been standard there, but gold was also legal tender till 1835.

2778. (*Mr. Fremantle.*) What led to the abolition of the gold standard?—I believe that it was mainly the very great inconvenience of the numerous coins which were passing current in various districts in India, and the great importance of having one uniform coin. It was, therefore, decided to have one standard rupee, called the Company's rupee, and that was the coin to be current throughout the whole of British India.

2779. So that it was more an objection to the existing state of things than an absolute preference for the single silver standard?—The Court of Directors considered that Lord Liverpool's recently published letter had established the principle that the standard coin should be of one metal only, and they had no doubt that in India that metal must be silver. It seems, however, to have been the very great inconvenience of the numerous coins, and the want of a standard coin, that was the primary cause of the change.

2780. How would you state your objections to the gold standard, provided the coinage arrangements were good?—The whole of the settlements of the land revenue are in silver, and the contract is that the landholder shall pay a certain number of silver rupees of a fixed standard. The meaning of introducing a gold standard would be that he would have to pay a certain number of fractions of a sovereign, and that would imply a fluctuating quantity of rupees, which would lead to very great inconvenience, besides possibly being very unjust to the payer, if gold should continue to rise in value.

2781. But might not the existing rupees be treated as a token coinage, and be received in payment up to a certain fixed amount?—In that case the rupee would cease to represent a fixed quantity of silver; the whole of the hoarded capital of India would be depreciated, if the rupees were made a token currency instead of a standard currency.

2782. Would not the adoption of a gold standard on the other hand bring out the hoards of gold very largely, and would not that be a good thing for the country?—I doubt if it would have any effect of that kind. Treasure will always be hoarded, unless the people completely change their habits, and, by preference, gold as being the more valuable metal. I think that the people will even now bring gold to the market whenever they suppose that it pays them to do so; and I do not think the fact of its being a standard coin would bring out gold any more, whereas the immense mass of small payments which have to be paid render gold coins of very little practical use in the country.

2783. But at present gold is in practical use in India for hoarding and for ornament?—There is a very little coinage, but it is a mere nothing.

2784. You appear to be apprehensive that the sterling prices of produce and of silver may be expected to fall until a point is reached at which silver cannot be brought to market with advantage, when the grower of produce must consent to a reduction of price, or trade will be checked. Have you formed any opinion as to when that point would be reached?—No, I cannot pretend to do that.

2785. But I presume you would agree that the effect of a considerable further fall in the sterling price of silver would lead to the closing of poorer mines, so that the fall would be to a certain extent arrested?—At a certain point, but the statistics of the production show that it may go to a very low point before it would be very greatly affected, I think.

2786. (*Sir John Lubbock.*) You stated that in your opinion the fall in exchange has been a great injury, both to the Government of India and to the people of India?—Yes, to the whole Indian community. I take the Government and the people as one for that purpose. It is with reference to the foreign payments.

2787. And when you speak of loss by exchange you mean a loss owing to change in the relative value of gold and silver. You have stated that the net expenditure of India in England has risen since 1876–77 by 3,593,000*l.*, of which you attribute 1,081,000*l.* to increase of expenditure, and 2,512,000*l.* to so-called exchange?—The increase of sterling expenditure is 1,081,000*l.*, and the number of tens of rupees payable in respect of sterling expenditure is increased by 3,593,000, so that the increase under exchange is 2,512,000.

2788. And you stated that until recently silver

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prices in India had not materially altered?—As far as I can see, that is so.

2789. Your argument, then, as far as I understand you, is that this 2,512,000*l.*, due to so-called exchange, is a real loss to India?—A real payment by India additional to the payments she had to make before.

2790. How far do you consider that this loss is due to the fact of the currency in India being in silver?—I consider that the whole of the increase arises from the taxes being received in silver, while a large part of the payments must be made in gold. The Government have only received a certain amount of silver, and they have had to pay a larger amount of silver than before. Whereas they would before have paid a certain number of rupees to defray their sterling expenditure, they now, without any consequent increase of their revenue, have to make a larger payment, therefore the charge is really increased by the mere fact that the number of rupees required to defray that charge has increased.

2791. You mean, that although they received the same number of rupees they really received a smaller value?—A smaller gold value. They receive the rupees which represent in India, so far as I can see, about the same value.

2792. Therefore your contention is that the silver has remained at the same value, but the gold has appreciated?—That, I think, is the case.

2793. And supposing the currency had been in gold, and the taxes collected in gold, would not the taxes have been really higher, for though the revenue remained nominally the same as before, still the actual value would have been greater?—The revenue, so far as the Government was concerned, would have remained the same, but as far as the community was concerned the effect would have been different; if the taxes had been payable in gold the payment would have borne more heavily on the taxpayers.

2794. The total expenditure of India is 44,000,000 tens of rupees, of which 14,000,000 are gold payments?—Yes, approximately.

2795. Therefore they are paying an increased amount as regards 14,000,000, speaking roughly?—Yes.

2796. The total debt of India is 162,000,000, speaking in round figures, of which 68,000,000 is in England and is due in gold, and 94,000,000 is in silver?—The sterling debt of India on the 31st March 1885 was 69,000,000, and the rupee debt 93,000,000. That would give a total of 162,000,000.

2797. And, of course, if the whole of the Indian debt had been in gold, the loss would have been far heavier than it is at present?—Certainly.

2798. You regard it as an advantage, do you not, that the standard of value should be stable in any country. That is your contention?—Yes, as far as it is practicable.

2799. And I suppose you will admit that, if India had a gold currency, prices in India would have fallen as prices in England have fallen?—I think so.

2800. You have stated that prices actually have not fallen?—I cannot see that they have, till lately.

2801. You have said that the Indian Government could not be expected to have put forward a budget year after year, showing a surplus of 2,000,000*l.*, if that 2,000,000*l.* were not actually required for famine, but in that case the 2,000,000*l.* would have gone in the reduction of debt, would it not?—They would have used any realized surplus in that way, but they would have been exposed to continual demands for reduction of taxes from one side or another.

2802. You would not consider a reduction of 2,000,000*l.* of debt to be an unreasonable amount under the conditions of India, would you?—What would actually have happened, in that case, would have been that they would have spent 3 millions or 3½ millions on public works, and only borrowed 1 or 1½ millions, so that the other 2,000,000*l.* would practically have paid off debt. I should have been very glad to have

seen such a policy, but it is more probable that taxes would have been remitted, or expenditure in other ways would have been increased.

2803. (*Mr. Barbour.*) A witness stated to the Commission that in the 10 years ending 1885 the Government of India had borrowed 59,000,000*l.*, and had spent on railways, irrigation, harbours, roads, and other public works, 116,000,000*l.* He quoted from the statistical abstract, and he said that a country that spent roughly 6,000,000 tens of rupees every year in this way over and above what it borrowed could not be said to be in an unsatisfactory position. Have you any remarks to make with reference to these positions?—I have examined the statistical abstract and the accounts, but I am unable to find such figures. In the 10 years from 1875–76 to 1884–85, the expenditure out of revenue on the construction of railways and irrigation works, including those charged to the famine insurance grant, was 8,768,000 tens of rupees, or an annual average of 877,000, not 6,000,000. Possibly the witness included the expenditure on the construction and repair of barracks, civil buildings of all kinds, and ordinary roads. This amounted to an average of 4,729,000 a year, over an area of 868,000 square miles, and had to be met as one of the necessities of government in India; but, while it doubtless is satisfactory that the Government should thus be able to discharge its duty, and while it may be a cause of regret that such expenditure frequently has to be temporarily curtailed when there is a special emergency, it cannot be viewed as a luxury which can only be indulged in if the Government is in a flourishing condition.

2804. It was one of the ordinary charges of administration?—Yes.

2805. A witness pointed to the fact that between 1872–73 and 1881–82 the salt revenue had increased by 1,208,000, and said that that showed remarkable elasticity in the revenues of India. During that time were there any changes of system, or is the whole of this sum due to natural growth of revenue?—The salt revenue did increase from 6,167,000 in 1872–3 to 7,376,000 in 1881–2, that is by, 1,209,000. Of this amount an increase of 805,000 occurred in the two years from 1877–78 to 1879–80, when measures were taken for the equalisation of the duties by reducing those in Northern India by about 16 or 17 per cent. and raising them in Southern India by 38 per cent. In 1882 a general reduction of 20 per cent. or more was effected. But the administration of the department had also been greatly improved, so that probably there was much less illicit consumption than formerly, and the quantity paying duty rose from 23 to 27 million maunds between 1872–73 and 1881–82. This included 938,000 maunds consumed by the native states with whom arrangements were made about 1876, the receipts from which and from the Portuguese Government under treaty amounted to 363,000.

2806. So that there has not been a very great growth of revenue?—It leaves very little for general growth.

2807. You gave figures just now showing that in 1870 the proportion of the whole English trade which was trade with India was 8·3 per cent. and in 1884 it was 9·7?—Yes.

2808. During those years, I think, the export duty on wheat was remitted in India?—That was in 1873.

2809. And during those years the import duties were entirely remitted?—The general import duties were remitted in 1882.

2810. And that would naturally cause a considerable growth of trade?—Undoubtedly.

2811. And the opening of the Suez Canal would no doubt have a tendency to specially increase the trade of England with countries lying east of the Suez Canal?—Yes.

2812. The trade of Europe at any rate?—The trade of Europe.

Witness afterwards withdrew.

Adjourned till Friday.

Twelfth Day.

Friday, 18th February 1887.

PRESENT :

THE RIGHT HON. A. J. BALFOUR, M.P., the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.
MR. J. W. BIRCH.
MR. L. L. COHEN, M.P.
MR. L. COURTNEY, M.P.

SIR T. H. FARRER, BART.
MR. C. W. FREMANTLE, C.B.
MR. W. H. HOULDSWORTH, M.P.
SIR JOHN LUBBOCK, BART., M.P.

MR. GEO. H. MURRAY, *Secretary*.

Mr. PAUL F. TIDMAN was called and examined.

2813. (*The Chairman*.) You are a member, are you not, of the firm of Mactaggart & Co., East India merchants?—Yes.

2814. And are well acquainted with all the facts concerning our trade with the East?—With the far Eastern portion of it.

2815. Are you of opinion that that trade has suffered by the disturbance which has occurred during the last 10 years in the relative values of gold and silver?—So far as English traders are concerned.

2816. Could you explain in some detail to the Commission exactly how the injury to the English traders arises?—I will take the two branches of trade, the one carried on by English merchants to the East in manufactured goods, and the other in the importation of produce from the East.

2817–8. Let us take first the case of the English merchant exporting to the East; do you think he suffers from the alteration in the exchange?—My case is, that he is in an entire state of uncertainty as to what he will receive for the proceeds of the goods that he ships at the present moment. He may make a calculation based upon the data before him at the time, and he may then find that, not as the result of any trade loss or contingency whatever, but from some fluctuation in the market for silver, what in the best of judgment would have been a profit has been turned into a loss.

2819. Some of the witnesses that we have examined have told us that that particular source of loss is obviated by arrangement with the banks, and by telegraphic transfers by which the merchant exporting to the East and from the East is saved from all loss?—Yes. I think, however, it must be evident to the Commission that there is a risk incurred if the article which a man must take in exchange for his goods, falls in value between the time of the commencement of his operation and the close. That risk must be borne by somebody, and if I put it on to a bank I simply shift the risk, and the person who takes that risk makes me pay for it. But, as a matter of fact, you will find that, whereas it has been asserted that Eastern banks are always willing to take this risk there are times out of number when they decline to do so, and when the purchase of goods is simply stopped because the merchant cannot make his arrangement for the exchange.

2820. I suppose those are occasions when the fluctuations are of so violent a character that the bank will not take the risk?—It would be generally on occasions of that sort. There might be other reasons, but that would be one reason.

2821. But, even at ordinary times, you are of opinion that the bank practically charges an insurance rate in addition to their ordinary business rate, and that that insurance rate is *pro tanto* a weight upon commerce?—I distinctly think so. There may be cases when the bank can reduce that risk to a minimum.

2822. But still they have to charge something for it?—The risk is always there.

2823. (*Mr. Houldsworth*.) The risk is on the balance that the banks have, because, although the banks lose in one direction, they gain in another, and therefore the total amount of risk is the balance. It might be a balance of profit. I quite follow you that there is a charge for the risk, but, after all, it is only on the balance of the bills both ways?—From the banker's point of view they might hedge both ways by a double operation.

2824. (*The Chairman*.) But there are certain cases which the banks cannot cover, in your opinion?—Distinctly; and they decline to sell forward in exchange. I have referred to the Manchester accounts of last year, and I found that that was so. On a number of occasions the market in Manchester for the East came to a deadlock, upon the ground, stated publicly, that the uncertainty of the exchange prevented merchants executing orders. That is in 32 weeks out of 50 last year.

2825. And on those days the whole commerce between the two countries was checked, owing solely to the uncertainty of the exchange?—Most distinctly; that is borne out by the public records of Manchester. You will find it in the prices current of any of the leading firms in Manchester. Orders in the market which might have been executed were impracticable, owing to the impossibility of fixing exchange.

2826. We are not to understand you as holding that for 32 weeks out of 50 Manchester and Singapore and the East had no commercial relations with each other whatever?—Not at all.

2827. What we are to understand you as meaning is, that there was a distinct inconvenience and check to the exporting merchant, because he could not induce the banks to take the risk of a fall by exchange, owing to the uncertain relations existing between gold and silver?—That is the explanation of it; that if there were orders in the market that day for 500,000*l.*, those orders were not and could not be executed, owing to the uncertain position of the exchange.

2828. They had to stand over to a period when the exchange became more stable?—Distinctly.

2829. (*Mr. Courtney*.) If there are orders?—There are always orders every week, and large orders. The trade is regular. It might be more one week

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than another, but the orders were there and are there. You would hardly find a week in Manchester in the year in which there were no orders, and orders to a large amount.

2830. (*Mr. Houldsworth.*) Might I ask whether the same effect was produced on imports, whether there was a check there also or whether they were not stimulated by the same cause?—The causes would not be coincident at all.

2831. (*The Chairman.*) As I understand, the particular evil which you are now explaining to the Commission is an evil which arises, not from the fall of silver, but from the uncertainty of the relations between silver and gold?—That is so entirely.

2832. And therefore that would affect imports and exports equally?—Yes, but the imported produce being sold in London upon the day on which the order was impracticable in Manchester would have been subject to entirely different conditions. It would have been drawn for months previously, and its cost would have been fixed months previously.

2833. (*Sir T. Farrer.*) I should like to ask whether this uncertainty arises from an actual fall or rise in the exchange at the time, or from some speculative uncertainty about what it may be. Is it at the time when there is a great fall in exchange that this uncertainty and difficulty arises?—If you trace the feeling with regard to silver for the first six months of last year, you find that the uncertainty about its value became intensified as the year went on, so much so that in the last quarter of the year there was a kind of feeling approaching to what we had some years ago, a feeling of panic such as we had when the suspension of the Bland Bill was spoken about, and if you notice the chart which is before the Commission the fall in price was very severe during those three months. Naturally at that time there was a very great uncertainty as to the future, and a complete distrust in the future of silver. Now I say that in the month of July the whole feeling turned, whether it was the appointment of this Commission, which I believe has had a great deal to do with it, or the large business done in wheat in India which created a great demand for exchanges or both, I do not know, but the reverse effect was produced, confidence was re-established to a great extent, and the price of silver rose.

2834. Then during that first six months, and especially towards the end of it, the business was very much extended, and exports would very naturally fall too, would they not?—They did so.

2835. And they would increase towards the end of the year?—Yes.

2836. Then now I will ask you to look at that paper which shows the export of cotton piece goods month by month through the year, and I ask you whether you find in those figures any evidence of that?—I know that towards the end of the year the Manchester figures increased; but to show this fairly you would require to see the next three months, when goods are ordered. They might take four months to make before they are exported.

2837. It is not at the time this suspension of business takes place, but two or three months afterwards that you see the effect?—Clearly.

2838. Now I would ask you to look at this return again for the three months after the months in which you say there was that great depression; do you see any such effect?—You must look at the whole exports. You have given me the exports of India only, and I think I am quite right in saying that the exports of cotton goods from Lancashire towards the close of last year showed a decided advance, and made up for a very dull state of business during the early part of the year.

2839. Do these returns show it?—Not as you put them here.

2840. They are very much the same all through the year. I think the largest amount of export was in value 1,700,000*l.* in March; the next largest in August, about 1,700,000*l.* again; and the smallest in December, when there was about 1,300,000*l.*?—This

is only to India, which is one great market, but not the world's market for Lancashire.

2841. (*The Chairman.*) But, at all events, as I understand your view, the uncertainty of the exchange does disturb the Manchester market on certain days when that uncertainty prevails?—Yes; but I do not wish that that should be taken merely as my opinion. I appeal to the printed records of the Manchester market.

2842. You have not traced the results of that disturbance in detail through the Manchester records and compared it with the monthly return of exports and imports?—I have not.

2843. What you tell us is the injurious effect of the disturbance on the Manchester Exchange?—Yes.

2844. And you hold that such a disturbance cannot exist without causing considerable inconvenience to commerce?—I do.

2845. (*Mr. Cohen.*) How long would that disturbance last which, you say, involved a cessation of business; a panic might only last six hours?—Friday is the principal Manchester market day. If the market we are speaking of is that of the 23rd April, you find the price of silver 47½*d.* In a fortnight after that day it has fallen ½*d.* Well that, of course, would render impracticable the limits that had been practicable two market days previously. Now, between the 7th of May and the next market day, the 14th, there was a further fall of exchange of nearly 1*d.*, therefore those limits would not only be impracticable on that day, but utterly out of the question, and hopeless; therefore business would be so far stopped unless those limits had been raised. The same limits remaining would be more impracticable a fortnight after than they were before.

2846. I want to get the particular fact that you have just stated substantiated. I do not think that you intend to convey by your answers that all business was stopped; it is simply that within certain limits transactions were impracticable?—I hope I have not made any such representation as that.

2847. What I want to know is whether the business was stopped in Manchester altogether for any period of time, or whether such stoppage did not only occur twice in the year, each time for 24 hours in consequence of the extreme variations and the fluctuation of silver?—I should say that business was never stopped, because there was purchasing for gold-using markets as well as for silver. There is always business. There is purchasing for the Australian markets as well as the Indian markets, for Australia is not affected by the variations and fluctuation of silver. I am not expressing my own opinion, but stating a matter upon which the Commission may satisfy themselves by the printed statements in Manchester. On those 32 occasions, the report states, business was either checked or stopped by the exchange difficulty. It is not my opinion, it is the opinion of the business community of Manchester.

2848. (*Mr. Barbour.*) Do I understand you to say that these orders were afterwards executed, that there was merely an interruption for the time, but no diminution in the total amount of orders?—Some might have been executed and some withdrawn, in consequence of the limits of the day. If I give an order it is to be executed within a certain time: if it cannot be executed within that time, and the limits are impracticable, the order falls altogether.

2849. (*Sir T. Farrer.*) Could you give us the dates of those 32 occasions?—They can all be put in before you; I have not them in my head.

2850-1. (*Mr. Birch.*) Supposing the market were held on the Tuesday, and nothing could be done in consequence of the fluctuations of exchange, the operations might be done on the Wednesday out of the market, just as well as in the market on the market day. It is only a momentary check on account of telegraphic information received that the exchange has suddenly dropped 1*d.*, and everybody is frightened for the moment, but the following day the merchant goes into the market and executes the orders he had

ready the previous day. The prices current would only show you what happened on the market day?—If a person in Manchester has an order to buy upon the Tuesday at a limit, and that limit is impracticable on account of the exchange between silver and gold on that day, it does not become practicable on Wednesday unless there is a change in the exchange, and if, as I point out to you, and as this chart shows, the course of silver at that time was steadily downward, what was impracticable on Wednesday became more impracticable on the following Friday, and it is only when you get a sudden jump, as you do here from the 14th of May to the 21st, that these orders, if they were left in hand for three weeks, may become practicable, and probably did become practicable.

2852. (*Mr. Barbour.*) Do you speak from personal experience in the course of the trade?—I am not personally interested in Manchester at all. I give my orders to buy through an agent in Manchester.

2853. (*The Chairman.*) Now perhaps you will go through the particular example which you mentioned as representing a possible transaction?—In the case I am supposing the buyer buys for shipment to Singapore 100 bales of grey yarn, and it costs him 1,500*l.* It reaches Singapore in the usual time, and is sold at the market price of the day, at the exchange of the day, which leaves him a loss. Now that is a trade loss, which has been incurred by that operation at the time I am stating.

2854. That trade loss arises from the fact that the relative value of gold and silver has altered between the 10th April and the 11th June?—No, there was scarcely any fall in silver between those dates; this is a loss arising out of the conditions of the market on the other side; it may have arisen from a variety of causes.

2855. But would a merchant, knowing that he would undergo such a loss, engage in the transaction at all?—In many cases, yes, because a merchant is obliged to keep up a large and assorted stock. He is very much in the position of a shopkeeper. If he has a large establishment, and desires to keep his place in the market, he must keep it supplied with every class of goods. If he does not, his buyer for that particular article leaves him and goes elsewhere. An old-fashioned merchant, who looks to his own business and manages it, is not altogether governed by the question whether he loses that 140*l.*, but whether he should lose that and make it up on something else. He must keep a stock.

2856. Then the merchant you are speaking of is not a mere intermediary between the producer on the one side and the consumer on the other?—I am not speaking of an agent.

2857. But the old-fashioned merchant, one witness informed us, is now almost extinct?—I should have thought not. It appears to me that the tendency of trade is rather to revert to that specimen. I mean to say, that many years ago there was a very large consigned business. Manufacturers were ready to consign their goods. Well, they found out, I think, wisely, that that is not their business; that their business is to sell to the merchant, taking their profit and loss on this side, and the merchant takes his chance of profit or loss on the other.

2858. Then we assume the merchant has engaged in this transaction, and quite apart from exchange it has produced a loss to him of 140*l.*?—That is so.

2859. Now we have reached the 30th June. On that day the exchange was 3*s.* 4½*d.*, and we have shown so far a net trade loss of 140*l.* 15*s.* Will you go on with your account of this transaction?—Then the yarn is sold at a varying credit from a month to two months. It is commonly called cash, but there is no such real thing as a cash sale, it is practically a month or two, and if you will notice the chart you will see that the actual course of exchange was that on the 30th July it was 3*s.* 3½*d.* and it fell to 3*s.* 2*d.*

2860. By what date?—The following fortnight it had fallen to 3*s.* 2*d.* and continued so for a month.

The money coming in was remitted, of course, at the lower rate.

2861. That was about the 13th August?—That would be so.

2862. And that produced a loss of?—76*l.* 15*s.* from the difference between silver and gold, the difference of exchange.

2863. Now will you give us another example and go through that in the same way?—The next is an example of exports from the same market in which the merchant buys 100 tons of pepper, which is one of the main commodities of Singapore, to ship to London at the market price, 23 dollars p. pl., which is 6,037*l.* 10*s.*, the exchange being then, on the 6th August, 3*s.* 1½*d.* the dollar. That gives 6,037*l.* 10*s.* This, in his opinion, being a dear purchase, he takes a view of the market and thinks to buy better by waiting. He waits until the 19th November, which is the time when the pepper comes generally freely to market, and he buys on the 19th November. He is so far right about his price, as the currency price has fallen from 23 to 21.50 dollars, and presumably, therefore, he was a wise man to wait, because had the exchange remained as it was at the time he bought, he would have received for 5,550*l.* instead of 6,037*l.* 10*s.*, the same quantity of pepper. But then silver takes another course, and instead of going down it suddenly goes up during the latter part of this year, and by the time he has bought his pepper and wants to ship it, he finds the exchange instead of 3*s.* 1½*d.* has become 3*s.* 5*d.* on the 19th of November.

2864. What is the result of that rise in exchange?—The result is that he pays 400*l.* more for the same stuff.

2865. So that when he proposed on the 6th of August to buy, instead of having to take an element of uncertainty into consideration he has, owing to the uncertainty in exchange, to take two elements?—That is so.

2866. The one is a possible fall in pepper, the other the possible rise or fall of silver as the case may be?—That is so.

2867. That, as a matter of fact, hampers him in the transaction of his business and involves him frequently in loss?—Yes.

2868. And if it does not involve him in more loss than gain, it adds a gambling element to business from which it would otherwise be free?—Distinctly. Because it is an element over which he has absolutely no control, and which is purely uncertain. It has nothing to do with him, and he has no possible means of affecting it one or the other.

2869. (*Mr. Barbour.*) Does a merchant find it possible to foretell what the exchange is likely to be for some months?—That I think is utterly hopeless. There may be times when you can make a prudent forecast, but in the case of last year, I do not think anyone could possibly do so.

2870. (*The Chairman.*) There are two arguments which have been brought against this view which you have been explaining to the Commission. It is said in the first place that the merchant can protect himself by engaging in a converse transaction of import at the same time that he engages in a transaction of export. Do you attach weight to that argument?—I say that it is utterly valueless, because the two classes of merchants are not the same men. There is a large number of houses that do nothing but export goods from this country, and who never have a pound of imported produce. On the other hand, there is a large number of houses that import foreign produce, and who never ship a piece of manufactured goods.

2871. Is it not the case that though an individual merchant might not engage in these double transactions he might get himself protected by the banks who are the intermediaries for both kinds of transactions?—I admit that there are cases in which the bank can do that, but with all deference I submit that it cannot be done without an element of

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risk coming into it. I do not believe it is possible. I do not think you will find an eastern banker who will tell you that it is possible for him on the course of the whole year to so precisely equalise the transactions of imports and exports, that by selling forward in this manner he is free from all risk and possibility of loss.

2872. Can you give us any figures showing the amount of insurance, if I may call it so, which the bankers charge their customers on account of this uncertainty?—No, that would be utterly hopeless.

2873. (*Sir T. Farrer.*) Could you give us any sort of notion of what proportion of the trade to the East is carried on through the medium of the banks, by which the merchants protect themselves, and what proportion is carried on by merchants taking the risk upon themselves in transactions of this kind?—If you take such a case as this last one which I have described, I think it was an impossibility for a merchant to bring the banker into play until the last moment. He forms his opinion in August as to the course of the market. He finds the price of an article is higher than he is willing to pay for it; he therefore resolves to wait till November, thinking the price would be lower; his view is borne out, and there is a fall in exchange, but there is a sudden advance in silver. That is a variation of which he must take the whole risk. In regard to exchange, he must wait till the stuff is bought before he sells his bill.

2874. (*Mr. Birch.*) And the variation of price may have had to do with the variation of exchange at the same time?—I am giving an illustration where the supply of the commodity was the main element affecting the price, not the price of silver, as affecting it.

2875. I suppose it has to do with the price at which it is realisable over here. You would buy pepper at Singapore with the intention of selling it over here at a profit?—Clearly.

2876. Just as the price varies here, so it will vary over there?—Undoubtedly, only more generally, the price on the other side is higher than the price here.

2877. Therefore the exchange might be affected by the very fall or rise in the price over there?—I should reverse the statement, and say that the fall or rise in the price over there might be affected by the exchange.

2878. (*The Chairman.*) You have so far given us some account of the loss to merchants in the East and in England from the uncertainty in exchange. Could you now give us some account of the loss which you believe to accrue to capitalists in England who invest in the East, say in Singapore? Perhaps you would be able to give us your views more clearly if you chose the concrete example of a particular company and a particular investment?—The largest company in Singapore is a Dock Company. It is a company with a million dollars capital, and has uniformly paid its 10 per cent. The shares are 100 dollars each, and to vary the illustration I have given in my memorandum I will give you an actual transaction. I had recently a transaction to put through which was of this character. An amount of 3,000*l.* had been invested before 1873 in shares of the Dock Company. The value of the Mexican dollar at that time was 4*s.* 6*d.* The dividends have been remitted annually to England, and the 10 per cent. dividend, of course, has varied in this country according to the exchange. It has sometimes been 9 per cent. and sometimes 8 per cent., according to the price of silver as compared with gold. The estate in which this 3,000*l.* was had to be closed, and the shares were sold. The shares were sold at the price or a higher price than they were bought at, and the loss to the estate was about 20 per cent. upon the original investment. That was from the fact that the dollar, which at the time of the investment had been 4*s.* 6*d.*, had fallen to 3*s.* 3*d.*

2879. (*Mr. Fremantle.*) And had the price of the shares at Singapore remained the same?—They sold at a better price because the undertaking was a suc-

cessful one; they sold at a profit, but there was a large net loss on the original capital.

2880. (*The Chairman.*) That is only an example of the loss to English investors in silver-using countries before the uncertainty in the relative value of gold and silver occurred?—A loss arising from the disturbance in the ratio since 1873.

2881. (*Sir T. Farrer.*) Was this a company that paid a fixed rate of interest or a rate of interest founded on its profits for the year?—It paid a dividend according to its profits. I think it would be possible to show the Commission an estimate of the amounts invested by banks and by merchants by way of fixed capital in industrial occupations, and otherwise in silver-using countries before 1873. It must be millions upon millions. Well, if these millions of money were to-day converted into gold; if the banks wanted to get home their money they lose from 20 to 25 per cent. on the original investment, and the consequence is this that as nobody knows what silver may be worth five or six years hence, you cannot, so far as my experience goes, get a penny of British capital to invest in a silver-using country. The promoters of railways know that not a sixpence of capital can be got for such undertakings as that so long as the uncertainty between gold and silver remains.

2882. (*The Chairman.*) So that the evil that you point out to us is not merely that investors have been hit hard by things that have occurred, but that these countries are being injured. English investors have been so thoroughly frightened that they will not invest in that particular country?—Yes, and I say further that British capitalists are injured, because I think that from 15,000,000*l.* to 20,000,000*l.* might be earned as an annual dividend on money in England for investments in silver-using countries if the money could be protected from the effects of this uncertainty.

2883. This evil is quite distinct from the evil from which those suffer who have invested in gold-using countries a large amount of money in fixed capital, and who, owing to the fact that there is a fall in price, could now only realise at a considerable loss?—Entirely different. There is one remark in Mr. Van Den Berg's memorandum which bears on that. He makes the remark that the German companies were said to have offered loans to the Chinese Government to the extent of 35,000,000*l.*, which might appear to show what I am now saying is incorrect, but that was an apocryphal operation. I am not aware that any syndicate did offer, but if they did, it was a sterling loan, with dividend payable in gold and capital repayable in same, and you may get all the money for Indian and Chinese railways in this country so long as you undertake to pay the dividend and principal in gold. But that involves an additional charge upon the industrial undertaking wished to be carried out in the other country. They must then take the loss from the difference between silver and gold.

2884. So that one of two things happens: either the English merchant has to take his dividend in silver, and in that case he will not invest, or the Eastern country has to take the risk of paying in gold, and then they will not ask the English merchant to invest?—Because they would need to have a commensurate addition to their profits.

2885. So far, I think, you have simply been dealing with the evils that occur owing to the uncertainty in the rate of Exchange. Are you of opinion that through the fall in silver, quite apart from the uncertainty in the ratio between silver and gold, a permanent stimulus has or can be given to the Eastern producer?—It think it is inevitable that it should be so. I know the question is disputed, but I do not see how it can be otherwise.

2886. Please give us an illustration of what you mean?—If I had 1,000*l.* which is transferred to a silver-using country, say, to the Straits Settlements of which I am speaking now, and when I transfer that money, let us say, the dollar is worth 4*s.*; I shall have 5,000 dollars put out on the other side into an industrial undertaking. But with a fall in silver

I could transmit so many more dollars, my sovereign becomes worth so much more, and the consequence is that I or the person who is operating for me has more of the currency of the country to invest in the particular operation. Now it appears to me that that must be, and I think facts bear it out, distinctly favourable to the country that is on the silver currency.

2887. But what profit do you, the English investor, what additional profit do you get out of it?—The producer in the silver-using country receives more currency for all he produces.

2888. But has he to pay the English investor, his creditor, in gold or in silver? I am now taking the case of the planter to whom you assume that you have lent your 1,000*l.*; he has to pay you interest, of course, on that 1,000*l.*?—I was assuming that it was my plantation; I was working it, and my produce would bring more in silver currency than it has done before.

2889. If your planter, or if you as planter, are producing for the English market, and in the meanwhile gold has risen in relation to silver, you do not get anything more?—It does not follow that I am producing for the English market; I may be producing coconuts to be used on the spot, and which never come to this country at all; I may be producing tobacco, and the whole of the produce of my plantation may be sold to the native population. So long as I spend my money in the silver district, where silver is the currency, I have an advantage, and it is only the instant that I change that silver into gold that my loss begins.

2890. Does not that amount to this, that gold having appreciated the owner of 1,000*l.*, now really has a greater command of commodities both in England and in the East than he had before, and among other commodities of which he has a greater command, silver is one, and that, therefore, it is possible that he may obtain an advantage if he uses the silver which he buys with that 1,000*l.* as capital in a silver-using country, selling the produce of that capital in the same country, but that must be a very limited case?—So long as he does so, and his money is not required to be transmitted home, so long he is in a better position.

2891. But that does not touch the great wheat or the great cotton producing industries of India. They are not seriously stimulated permanently in your opinion by this fall of silver in relation to gold?—I think obviously, and, I think, the proof is that the whole creation of the manufacturing industry in India practically dates from the demonetization of silver.

2892. Before coming to that, these industries in India, at all events, do not profit in the way that you have just explained to us, you would profit if as the owner of a thousand English sovereigns you were to become a planter in Singapore. That is not the mode in which the export is stimulated, is it?—The grower of Indian produce has now 15 rupees as the equivalent of each sovereign whereas he had formerly only 10, and his enterprise is stimulated in the same way as enterprise in this country was stimulated when there was a great increase to the currency after 1850.

2893. Let us go to the case of a manufacturer in India. Would you explain to us how you think he permanently benefits by the fall?—He benefits because he is in a country where the standard is depreciating.

2894. Prices have fallen in India if they have moved at all, even estimated in silver, have they not?—There has been so very much discussion as to the course of prices in India that I think it is a somewhat doubtful thing, but, theoretically, there are reasons why that effect has not been produced in silver prices so far as it might have been, because the volume of the currency has not been increased as I expected it would have been; but the man who is the manufacturer in India in the first place has a freedom from the burden which the manufacturer in this country has owing to the increasing weight of fixed charges, that is to say, rent, taxes, and rates, which are

growing heavier and heavier in this country, but which do not affect him there.

2895. You mean growing heavier through the appreciation of gold?—Yes, distinctly growing more difficult to meet. He has to produce more stuff if he is to meet them. But the man on the other side is not open to that, as his wages have not been affected, I understand the rate of wages has not risen in India. More than that the Indian manufacturer has a market open to him in China and Japan, as is shown by the large exports from India, which are unaffected by this question which, I say, affects trade between silver and gold using countries. He has a common standard of value with the whole of the silver-using East, which is an enormous market, and the exports from India show conclusively that the Indian yarn is steadily supplanting the yarn manufactured in England, and it must be so.

2896. (*Mr. Barbour.*) Is that not only the coarse yarn?—I know it was said that India would only manufacture the coarse yarn out of Surat cotton, but the process of manufacture has very much improved, and they are now building a mill in Bombay to turn out 30's or 40's yarn.

2897. Is not the building of that mill so far an experiment? It is being built but the yarn is not in the market?—The yarn is not in the market, but I think a manufacturer would say there is no reason why the experiment should not succeed.

2898. (*The Chairman.*) Then you do not hold that the stimulus to the exports of India from the fall of exchange arises from the different ratio between gold and silver; it arises from the fact that the Indian manufacturer is not subject to certain grave inconvenience which the English manufacturer is subjected to owing to the appreciation of gold?—I think that is largely so. I think the Indian manufacturer is very much in the position that the British manufacturer was when gold was depreciating in this country, prices rising, and taxes and charges becoming lighter.

2899. Really it is due to the fact that the Indians have got either a stationary or a depreciating currency?—Largely so: but the advantages of being able to trade with the whole East upon the same standard of value, silver, are incalculable.

2900. Can you now give the Commission any facts illustrating your views, drawn from the commerce between Holland and Java? First of all, let me ask you whether you do not think that that particular commerce is of importance in this case since Java is in other respects exactly in the condition of Singapore but has either a gold or a bi-metallic currency?—Yes, I think the commercial conditions of Java and the Straits are similar, subject to the conditions of government which are very important. Java has been subject to very severe taxation.

2901. You are distinctly of opinion that you cannot deduce anything from "commissariat" prices, they are misleading?—I think they are most misleading.

2902. The facts that you have just explained to us about Java rather complicate any deductions you would make as to the state of the commerce between Holland and its colony, do they not?—Yes.

2903. Subject to those deductions could you draw any inferences from that commerce?—I think apart from causes which have been special to Java, the main fact remains, that over a very long period the fluctuations in Java exchange with England and Holland have not varied appreciably, by which I mean to say that they have not varied by 2 or 3 per cent., not sufficient to be a serious drawback to any commercial operations on an extended scale for a long period, whereas during the same period the fluctuations in the Straits Settlements have varied to the extent of 20 to 25 per cent.

2904. I suppose the exchanges with Java have never varied by more than the cost of transporting specie?—Exactly.

2905. (*Mr. Barbour.*) The standard in Java is a gold standard, the currency is silver but the standard gold?—I submit not. I cannot understand a gold standard

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where gold and silver are both an equal legal tender in discharge for debt to any amount at a fixed ratio. That is the position of Holland and her colonies.

2906. (*Sir T. Farrer.*) Is not Holland in the same condition as France and the Latin Union when they suspended the free coinage of silver?—Yes, but I cannot admit that a country is on a gold or a silver standard so long as both metals are legal tender to any extent for a debt.

2907. (*Mr. Barbour.*) All I wanted to know was whether although the coinage of silver was suspended, the coinage of gold was still free?—Yes.

2908. (*The Chairman.*) And coincidentally with that all debts may be paid in either the one standard or the other?—Yes.

2909. Both to the Government and the ordinary creditor?—Yes.

2910. Do you think that you could show from the state of the commerce of Java that it has gained by this stability of exchange which, as you inform us, has lasted to the present day?—I think it is to be shown, taking up the last illustration we had with regard to silver-using countries, by the question of investments. This is the official statement of industrial investments in Java. They aggregate about 20,000,000*l.* sterling roughly, and the Government have spent, I suppose, a much larger amount. These undertakings have all been gone into quite in recent years, and if you wanted double the amount tomorrow you could get it, because of the stability of the currency. There is one of the largest of these undertakings which is called the Netherlands India Steam Company, and it has lines throughout the whole of the Archipelago. Now the Netherlands India Steam Company publish their accounts in this form. On one side they put their currency, so many guilders and the dividend at so and so and on the other they put the fixed sterling, and year by year it is a matter of perfect indifference to you whether you are resident here or on the other side, you have the exact equivalent, and you know the exact amount you will receive; I say if you could make any such balance sheet for a railway in India you could get money in London by the million. If you could do it in the Straits Settlements and the Malay Peninsula we should be able to get 100,000,000*l.* of money, enough to cover the Malay Peninsula with railways.

2911. In fact, your opinion is, from a study of the English money market, that Java has no difficulty in inducing English investors to invest in any movement that Java desires, and that other countries having a silver currency cannot get English investors to invest any sum at all?—There is no difficulty in obtaining capital where dividends and repayment of principal are guaranteed according to the lender's standard of value.

2912. Some authorities, notably Mr. Van Den Berg, say, with regard to the prosperity of Java: "The only conclusion to be drawn is that during recent years the state of affairs, as far as European enterprise is concerned, has been quite the reverse of prosperous; and, considering the large place European enterprise occupies in the economical development of this colony, it is not to be wondered at that the same conclusion also applies to the general welfare of the country. No doubt the crops of rice and other food grains have been uncommonly plentiful for the last two or three years, and it is not to be denied that part of the native population have benefited by the low prices ruling accordingly; but low prices of rice are no unmitigated boon to the people, who have to pay their land rental and other direct taxes, not in kind, but in money. When there are no buyers to be found for the rice in store, money must be procured by the sale of other things, such as household furniture, clothes, domestic animals, &c., in order to meet the exigencies of the tax collectors, and thus a plentiful crop may become a source of distress for many. At all events the total ruin of a portion of the European planting interest, and the precarious position of other

planters, who, to make head against their present difficulties, have had to observe the strictest economy in regard to wages and other expenses, have caused a good deal of harm to the native population by limiting their means of subsistence. Both natives and Europeans have been experiencing very bad times during the last two or three years, and an almost universal decline in the general welfare of the country is only too evident"—Yes, and I think you will find the explanation here: Mr. Van Den Berg says:—"All would have gone on well as before had it not been for the prices of nearly all the principal staple articles of export falling to a level, scarcely leaving any profit at all." Now the fact is, that during the last five years Java has been subjected to a series of most fearful natural calamities. They have had cattle plague, which destroyed almost the whole cattle in parts of the island; they have had cholera; they have had earthquakes of an unprecedented character, and they have further had an extraordinary fall in the values of their principal exports, which are sugar and coffee, owing in the first place to the competition of beetroot sugar in Europe, and in the second place to the fact that the silver-using country of South America has been able to import coffee more favourably than from Java, and to this extent you can trace a loss of 5,000,000*l.* annually in these two articles. That has been the result in the last five years of natural causes, without any question of currency at all. Mr. Van Den Berg distinguishes here between other causes and currency causes, and, from what I can see, what he says about currency is fair enough. If you had such a state of things as in British India, *i.e.*, a depreciating standard, it would have stimulated productions of all sorts. If, on the other hand, you were to introduce it now, you would have the natives suffer from the increased price of their goods, and he puts it, weighing one set of conditions against the other, that you had better leave things alone, *i.e.*, with gold and silver both legal tender.

2913. Then your view of the condition of Java may be put in this way, apart from the various plagues and famines which you have detailed to us Java has gained owing to the fact that investors are prepared to invest in Java, in consequence of Java having a stable standard. Java has lost compared with other similar settlements in the East, owing to the fact that there has been none of that stimulus in the export trade, which, as you have explained to us exists both in Singapore and British India?—That is exactly it.

2914. In your opinion the evils which you have explained to us as occurring both to the British merchant and to the British investor, would be obviated, if through a double standard the stability of exchange was established?—I believe they will be eliminated.

2915. (*Mr. Barbour.*) I think you said that the merchant could not always fix his exchange with the bank, as sometimes the bank would not take the risk?—Yes.

2916. And I suppose in any case a bank would not take a risk for more than a certain period?—Clearly not.

2917. You could not cover a transaction six months ahead?—I think no banker would do such a thing, unless he had secured himself, or else charged such a profit as he considered covered the risk.

2918. (*Mr. Courtney.*) Would not a bank discount a bill running some months on India?—Yes; Eastern banks do so.

2919. Does not that involve a question of considering what the exchange would be some months hence?—It involves it for four months, and they would certainly charge the customer a rate that would leave them profit. Four months is the usage between England and India.

2920. You qualify your answer to Mr. Barbour so far as to say that a banker would make an arrangement for four months?—I do not deny that.

2921. (*Mr. Barbour.*) I asked you if a bank would take a risk for a very long period, say six months?—

Four months would be the usance generally, for six months they would charge proportionately.

2922. (*Mr. Courtney.*) Would four months be sufficient to cover a merchant's risks from exchange?—As a rule he could not buy and sell in London within four months. He could not realise his produce in four months from the moment he bought it.

2923. Your examples do not run over three, I think?—The 10th of April to the 13th of August.

2924. Just four months?—Just four.

2925. The period over which a bank could and would cover the risk?—That operation was a somewhat unusual one, for the sake of an illustration I assumed. It was sold immediately.

2926. It is the business of a bank to discount bills running four months?—Yes, and to charge their customer for doing so.

2927. And so far it must undertake the risk of exchange for four months?—It charges its customer for that risk, and its business is to make a profit on all such transactions.

2928. Your view is that gold has been appreciated, not that silver has depreciated?—I think gold has been distinctly appreciated in this country.

2929. And silver has not been depreciated?—Silver has no purchasing power in this country.

2930. Well, but it may be depreciated all the same?—If you mean to say the market price of silver is 20 per cent. lower than it was, that is on record.

2931. Quite so, but that is measured by gold, and it may be that it is lower than it was, because gold has appreciated and not that silver has depreciated?—It may be so, but there is evidence of both.

2932. (*The Chairman.*) I think your view is that the causes which have made this variation or this fall in the value of silver in relation to gold, rather affect the demand and supply of gold than the demand and supply of silver?—My view of the fall in the value of silver is that the demand has been checked for it, that the demand which formerly kept up the price of silver, which mainly was for the manufacture of money, is gone. No silver is being coined in Europe; practically it has been all stopped; therefore the demand for the metal for that purpose coming to an end the prices must have fallen from that cause alone.

2933. Then your view is that both operations have occurred?—Both have happened, I believe.

2934. That is to say, that silver, regarded as a commodity, is of less value compared to other commodities than it was?—Yes, it is so.

2935. And also that all commodities are of less value in relation to gold than they were, including silver?—Clearly.

2936. (*Mr. Courtney.*) The effect, at all events, of what has happened you believe to be a great stimulus to industrial occupations in silver-using countries?—I think it has been entirely to the benefit of silver-using countries.

2937. And, therefore, great advantage is secured to those who are going to engage in industrial occupations in silver-using countries. According to your own example, a person with a certain quantity of gold about to embark in industrial occupations in a silver-using country has received and is receiving a great advantage?—So long as his operations are confined to the silver-using country.

2938. Then the effect of the change has not been to discourage the direct occupation of an industry in silver-using countries?—I have stated, that if it could be assured that the money invested in a silver-using country was never to be wanted back again from that country to this the advantage is great to the producer in the silver country, and in the Straits Settlements all the Chinese at this moment are becoming wealthy. Through this fall in silver everything that they have is more valuable than it was. Their land has risen, and so forth, and they get the benefit of it, taking their profits to another silver country. If, on the other hand, an English investor wants his money back he is at a disadvantage. While the money is in that colony it has an additional value to the man who uses

it, but the moment he wants to send it home and convert it into sterling he must take his loss.

2939. That is the case of a person who has sent out the money some time ago, but taking the situation now, is it an encouragement to a person now to engage in an industrial occupation there?—If he accepts the view of the "Economist" newspaper clearly not, because it says that the rupee may fall to 1s. If he makes his investment while the rupee is 1s. 6d., and if the silver rupee is to go to 1s. his loss when he realises would be to that extent.

2940. If you anticipate that fall of the rupee to 1s., is that due to a further appreciation of gold or to a further depreciation of silver or both?—I think mainly to a further demonetisation of silver, which seems inevitable.

2941. That is a depreciation of silver?—Clearly.

2942. Would not that affect the silver prices of all commodities in silver-using countries?—Yes, but very gradually, so long as you increase the currency of the country by fresh coinage of silver you will raise prices in those countries.

2943. So that if your rupee fell from 1s. 6d. to 1s., prices in silver-using countries would rise correspondingly?—Not necessarily, and certainly not coincidentally. As a matter of fact, the effect of the fall from 1s. 10d. to 1s. 5½d. in India, as far as I know, has at present been infinitesimal.

2944. Yes, but you have already said that the fall that has taken place, is due to the appreciation of gold as well as to the depreciation of silver. I am calling your attention to the point that silver in future is depreciated and through the depreciation of silver the rupee falls from 1s. 6d. to 1s. You would argue from the phenomenon of India during the last 15 years as to what would happen in the future, supposing the change is due to that cause alone. If there was a change from 1s. 6d. to 1s. due to the depreciation of silver, would not silver prices in silver-using countries be affected correspondingly?—I should agree that they ought to be, theoretically, and that if the currency of India were largely increased by free unlimited coinage of silver, you must have a rise in prices, but arguing from the last 15 years I could not expect prices to accommodate themselves to the value of silver except very slowly.

2945. So that there would be some compensation, at all events, to the person engaging in an industrial occupation in the East, even if he wanted hereafter to realise; he would get more silver for what he had to realise and sell?—He might do.

2946. And possibly get back all the sum in gold?—I have given you that actual transaction, in which the man sold at a considerable advance on his original investment, and still made a loss of 22 per cent. It would require a great rise, of course, in prices to make up such a difference as that as from 1s. 6d. to 1s.

2947. No doubt; but this depreciation, as I pointed out to you before, is hypothetically due to appreciation of silver. The change in the historical example which you recapitulate is due to two causes; you admit probably more to the appreciation in gold?—No, I gave that case as a distinct illustration of the depreciation of silver; I gave an actual transaction. The investment was made in 1872, I think, when the dollar was 4s. 6d. The amount was remitted home at 3s. 3d. The advance in the silver price of these shares was considerable, but in spite of that the realisation in gold showed a loss.

2948. Yes, that is just what I say; that example of what has happened during the years from 1872 to 1886 or 1887, in which you admit the change between gold and silver, is due partly to the appreciation of gold and partly to the depreciation of silver, possibly more to the appreciation of gold than to the depreciation of silver?—I am not prepared to say that. I say I anticipate a further fall in silver from a further demonetisation of silver.

2949. The point I wished to bring out was that a person directly engaged in an industrial occupation in the East at present, going into it for the first time,

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receives, you admit, a considerable benefit?—While this investment is in the silver-using country.

2950. A person engaging at present in an industrial occupation in the East receives, according to your position, a considerable advantage?—In the East.

2951. And that advantage will continue unless silver falls still more in relation to gold?—Yes.

2952. If silver by chance rose in relation to gold, the advantage there would cease, but he would be able to remit home more than his original capital?—Quite so.

2953. So that on that side he has a sure gain as long as the depreciation lasts, and realisation at a profit if the depreciation turned?—That is so.

2954. If the depreciation went further, you say he would only be able to send home at a loss?—Yes.

2955. The point I wished to find out was whether a further depreciation would not be compensated by a rise in prices there so that the moment he realises, the rise in prices there would counterbalance in some degree, if not entirely, the loss on remittance home?—Well, I am only able to answer that by saying that it is an impossibility for me to give more than an opinion founded upon what has actually been happening. I can only say that theoretically the prices in the silver-using country would rise; that the prices of land would rise, and of commodities would rise. Ultimately, they ought to do so, but that their rise might compensate for the fall in silver in such time as would be likely to assure a supposed investor I do not believe.

2956. (*The Chairman.*) The conclusion to which Mr. Courtney's questions point would be entirely accurate in your view if the whole cause of the depreciation of silver in relation to gold were a fall in silver and not the appreciation of gold, and if, besides that, the probable effect of a rise in prices in silver-using countries were felt at once to its full extent?—Clearly.

2957. If both those conditions were not completely fulfilled then the supposed investor would lose when he tried to realise and transmit his gold?—Clearly.

2958. (*Sir T. Farrer.*) If the smaller quantity of gold received has risen from appreciation of gold, is not the smaller quantity of gold received equal in real value as regards commodities to the larger quantity which he invested?—You appear to me to assume a sort of perfect machine in which everything is to simultaneously adapt itself to something else, but, if you pardon me saying so, it does not seem to be a business machine. I know, as a matter of fact, that trade does not work so well and prices in silver-using countries do not spring in the way Mr. Courtney suggested, and I say if you want a test whether people accept his view of the situation, try the London market, and see what money you can get to put into an industrial occupation in a silver-using country. Ask the Indian Council how much money you would get if you guaranteed the dividends and the principal in silver.

2959. I am dealing with the question of a person engaging directly in industrial pursuits. Your reference to the borrowing of money is not the case of a person engaged directly in an industrial pursuit, but of lending a fixed sum of money to be repaid by a fixed sum of money in rupees, a totally different question. I thought you yourself, in answer to the question of the Chairman, dealt with a case of a person engaged directly in an industrial pursuit, whether indigo or pepper?—If you suppose me to go to the Straits Settlements with 1,000*l.*, and invest it in a pepper plantation myself, I agree with you that so long as I stay in the Straits Settlements I have the advantage of the fall in silver; and that if silver falls more, it benefits me while I am there; but if I want to come back to this country then my position is entirely reversed, and I lose the advantage, because I have to convert that money again into a gold currency. That is what I understand you to mean by directly interested in an undertaking.

2960. Quite so. I wished you to separate, in your

mind, the two cases: first, of a person who takes his capital out, or sends it out to an agent and works it himself, and next a person who lends capital on loan to be repaid in the silver of the country?—But in such countries as ours no European could do such work as this. The capital invested is mainly that of Asiatics, who work these operations; it is not done by Europeans.

2961. Have Europeans not hitherto engaged in coffee plantations and in indigo work?—Scarcely at all. The Straits Settlement cultivation is carried on almost exclusively by Asiatics.

2962. Has there been any difficulty in obtaining further capital to invest in cotton mills in Bombay?—I cannot speak of Bombay; I can only speak of my own colony, and I can say you would not get 6*d.* for it. If you wanted to build a manufactory there, and were to ask for the capital to be supplied you here in gold, you would get nothing, unless you undertook to repay the debt and the dividend in gold. I can conceive it possible in Bombay, because a man might go to Bombay and directly engage in the business, and he could ship his yarns to other silver-using countries.

2963. (*Sir T. Farrer.*) You say there is great difficulty about getting money for investment, but is not one of the subjects of your complaint to-day that India is competing successfully with Lancashire in consequence of the divergence of gold and silver?—I think the Lancashire manufacturer is distinctly handicapped as against the Indian.

2964. Have the cotton factories in India any difficulty in finding the capital?—I am not able to speak as to that, but I understand the capital has been subscribed mainly in silver rupees.

2965. But when a person invests money either in the Straits Settlements or in India in an undertaking which is to produce a certain quantity of cotton or of other produce it is the quantity of produce that is produced, and the expense of producing it that governs the profits, do they not? After all that produce has to be sold?—Yes.

2966. It has to be sold for a greater or a less quantity of silver if in India?—Yes.

2967. And that silver may have to be changed against gold if it comes back to this country?—It must be.

2968. But it is the produce, is it not, which governs the profits. The fact that it is exchanged through silver and through gold for something in this country does not signify; those are only intermediaries. If a person invests money to be repaid at a fixed interest one can quite understand that that is a different thing, but if he invests money in something which is to produce cotton or corn or anything else it is the quantity of corn and the quantity of cotton which is produced that will govern the profits, is it not?—In the country in which he is manufacturing, yes.

2969. Then if more of that cotton is produced, and it is sold against a certain quantity of gold, and that gold against a certain quantity of commodities in England, it is the quantity of Indian commodities against the quantity of English commodities which governs the profit, is it not; and what difference does it make what the relation of those intermediaries is to one another?—Are you assuming that the manufacturer sells upon the spot?

2970. No, I am assuming that a man has invested in something in a country which has a currency very different from our own. How can the intermediate currencies through which the profit travels alter the real amount which comes back to the investor?—The conditions you are assuming might be reasonable enough for a scholastic discussion but are not realised in the routine of commerce. I have explained that the exporter of goods is by no means necessarily the importer of produce, and the exchange, therefore, of Indian and Eastern commodities is neither simultaneous nor co-equal. The investor operates with the view to gain an additional amount of his currency than he had before, but if he receives it, it

by no means follow that he invests this profit in commodities. A case in point is before me. A planter remitted to his London agents a certain sum from Java as his surplus profit for the year with the order to invest it in consols. Now from the comparison I have drawn between stability of currency in Java with the frequent and capricious fluctuations in the adjacent colony of the Straits Settlements, I think it is clear that the amount coming back to the investor would bear the same proportion to his investment as it did when that investment was made, whereas in the other case, owing to the depreciation of the currency relative to gold, the proportion would be much less. The amount of gold he would receive being less, his annual income from its investment in consols would be proportionately reduced. Even if we accept your assumption (for the sake of argument) that each item of Eastern produce is exchanged for another item of home produce, still it appears to me evident that so long as the different currencies are allied to standards of value which are subject to frequent and violent disturbances in their relation one to the other, great changes may arise in the real amount coming back to the investor from capricious relationships existing between the currencies through which it passes.

2971. Then I was going to have said something to you about the comparative prosperity of the Straits Settlements and of Java, but I understood you to say that though the Dutch currency system had given Java the advantage which you have explained, there were other counterbalancing disadvantages. The Straits Settlements are in a place in which they trade very freely with Java and the Dutch Settlements, with India, and with the United Kingdom?—Yes.

2972. *Ceteris paribus*, you would expect to find that the commerce of the Straits Settlements would increase more rapidly where there was no fluctuation of exchange as is the case between those settlements and India, than where there is fluctuation of exchange, as there is between those settlements and England and between those settlements and Java?—I should expect the Straits Settlements to show an abnormal development from the depreciation in silver, and I think they have shown it.

2973. Yes; I was not speaking of their development. Their exports and imports have increased very largely indeed, but I was not speaking about their development, I was speaking about their trade with neighbouring countries?—The local trade?

2974. Their trade with the Dutch possessions, their trade with the United Kingdom, and their trade with India?—That comprises the bulk of their trade.

2975. Now the Dutch possessions have a gold currency, have they not, or any rate they have a mixed currency which does not fluctuate with gold countries?—It is what is called a “limping” standard as explained (2905–8). The currency is entirely silver.

2976. Then I find that between 1871 and 1885 the trade between the Straits Settlements and the Dutch possessions has increased by nearly 5,000,000*l.*, or 158 per cent. I find that their trade with the United Kingdom, which has a gold standard, has increased by about 2½ millions, or about 58 per cent.; and I find that during the same period their trade with India, which is close in their neighbourhood, and which has the same silver standard, has increased by a million and a quarter, or 47 per cent., that, therefore, their trade with the Dutch possessions and England has increased a great deal faster than their trade with India. I should argue from that that the fall in exchange has not had so serious an effect upon trade as might be supposed?—That is so open to the very obvious explanation that the market for Straits produce is a gold-using country mainly. Java does not use the produce of the Straits Settlements. Pepper and tea and tin are not shipped to Java.

2977. That is exactly the contrary of what I have been saying, which is that the trade of the Straits Settlements with Java has increased faster than it has

with any other part of the world?—We must see what the figures represent. I prefer to take the figures from the Blue Book of the Straits Settlements (v. 2 and 3, 1885), because they are not complicated by movements of bullion or specie. So far from showing that “the trade of the Straits Settlements with Java” has increased faster than it has with any other part “of the world” an analysis will bring out the fact that its proportions are really insignificant. The figures are converted into sterling at 3*s.* 7*d.* per dollar, the rate adopted in the Colonial Abstract.

Taking the case of imports first, of the total 3,671,945*l.* in 1885 (and the remark would equally apply to any year) at least 3,300,000*l.* represent trade between the Straits Settlements and England, for Singapore, owing to its free trade policy, has become the entrepôt of the far East. Practically the whole of the imports into the colony from Sumatra, Riow, Balli, and other Dutch islands, consisting of tobacco, spices, gums, canes, tanning material, and dyes, are brought to England for shipment to Singapore, where they are paid for in Mexican dollars, the currency of the Archipelago no less than of the colony. As regards Java, the figures must be applied on the same principle, although not to the same full extent, for between Singapore and Java there is an interchange of a little sugar, coffee, and rice. The export figures show a trade of a similar character, the bulk consisting of English manufactured goods, which from Singapore are distributed throughout the Archipelago. These returns, therefore, so far from invalidating my argument, confirm it. They prove the stimulus given to production in the far East. The fall in silver enables the natives to obtain much more money for everything they bring forward to Singapore, where they can buy English manufactured goods cheaper than ever. As regards Indian trade, the value of its imports consists mainly in opium, and the exports are trifling.

2978. At any rate the difference of standard and the fluctuations of exchange between those two countries have not prevented an enormous development of trade?—Do not let me be misunderstood about Java and Singapore; do not let the Commission suppose that there is any difficulty about the currency. Mexican dollars are current throughout the Archipelago, so that no questions of exchange hamper trade. But the “enormous development of trade” arises from the depreciation of this currency measured in gold, and is a development not between Java and Singapore, but between Singapore and England.

2979. I think you said that owing to the advantages that silver countries had they were taking the trade away from Lancashire?—I think the Indian mills are taking it away.

2980. I would ask you to look at the returns of the exports of cotton goods and yarn from this country to the different foreign markets, and then I would ask you whether those figures bear out the idea either that Lancashire is losing its trade with India, or that India is cutting Lancashire out in the trade with the other silver-using countries of the East?—That I have no doubt about from figures also.

2981. Then I will ask you to return to what I began with. You have said that these fluctuations in exchange stopped the business on the Manchester market. I suppose if they do that really to any permanent and complete extent, that would show itself in the export figures, would it not?—I never said that it stopped it to a permanent extent. I merely said they stopped it from week to week, possibly for a day, possibly for a week, possibly for a fortnight. It might be that what is at one time impracticable may become practicable. It is a check, is hampering, and an inconvenience to business rather than a stimulus, because if one transaction falls through there is another transaction comes with the next mail.

2982. It is rather an interruption and harassment of business than a prevention of business?—The volume of exports from Lancashire has not fallen off; it continues, but business is conducted under harass-

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ing conditions. I look upon anything that harasses trade as a prevention of full and free trade.

2983. (*Sir John Lubbock.*) Would you not say check rather than prevention?—I say that there is an actual amount of business lost; that is capable of proof. If an order cannot be executed it may be dropped altogether because it cannot be executed within a certain time. That order is lost. If I am an agent I have lost my commission, the merchant who commissioned me has lost his share of profit. Another transaction may come on top of it and I quite admit that the total volume of business for the year grows in Manchester but it does not run smoothly.

2984. (*Sir T. Farrer.*) Then supposing that we do find, as we do find, that the trade of England and of Lancashire with silver-using countries, and with India in particular has grown faster than that same trade with gold-using countries during all the period in which this fall of exchange has taken place you would admit that much as it may have harassed and annoyed trade it has not very seriously prevented the development of trade?—I should not like to suppose anything of the sort. I think you will find it to the contrary if you take a sufficiently long period. Exports to silver-using countries have not increased in anything like the proportion that they might have been expected to increase.

2985. At any rate it has not had that fatal effect which from some of the utterances on the subject we have been told that it has had?—I have been careful not to speak of any fatal effects. It has not ruined but it has hampered, worried, and checked business from causes within control, and which business men have a right to be freed from.

2986. Many statements are made that the English and American farmers are being ruined by the fall in the value of silver, and in the same way, on the other hand, the English cotton manufacturer is being ruined?—I think the English farmer is distinctly being ruined by the competition of Indian wheat, which, at a higher rate of exchange could not be sold at the same price. It is conclusively shown by the Bankers' Union market calculations in Paris. You cannot sell Indian wheat at the same price to-day as you could six months ago, because the rate of exchange is higher. To that extent the English farmer is relieved of that amount of foreign competition.

2987. (*Mr. Fremantle.*) You said that the price of silver, I think, necessarily fell when the coinage of that metal was suspended in France and elsewhere in 1874?—Yes.

2988. You are aware, no doubt that in 1878 the coinage of the silver dollar in the United States which had been suspended was resumed under the Bland Act?—Yes.

2989. You are aware also that the market price of silver in 1878 was at the time of the resumption of the coinage of the dollars about 54*d.* per ounce in the London market?—Yes.

2990. And you are also aware that it has fallen now to 47*d.*, notwithstanding the fact that the United States during the whole of that period has been coining almost 5,000,000*l.*, sterling a year in silver dollars?—Yes.

2991. Then is it possible to say that the action of any State as regards coinage could affect the silver market in the way that you thought probable?—I think you will find that, allowing for the coinage of the 2,000,000 dollars per month under the Bland Act, and the amount of silver which had been coined by the Latin Union previously, there has been an enormous diminution of the amount of silver used for coinage in spite of the Bland Bill operation.

2992. But the coinage of silver had been suspended for some years before the Bland Bill became law?—Yes, partially, but it was only in 1878 that the Union suspended entirely the coinage of five-franc pieces.

2993. And at that time the price had only gone down to the 54*d.* per ounce. Does it not strike you

as curious that since the coinage of silver was absolutely increased by 5,000,000*l.* sterling a year, the price should have fallen, and fallen almost continuously ever since, to 47*d.* per ounce?—Not unless you show that the amount of silver taken for the United States is far more than the diminution caused in the demand for it elsewhere.

2994. But surely it must be allowed that the 5,000,000*l.* added by the Bland Bill was an absolute addition to the coinage as it had stood between 1873 and 1878?—Yes; you have had 50,000,000*l.* sterling coined in the 10 years. That is nothing compared with what the coinage would have been had the Union remained open and faith in silver not been shaken. It is not in itself a demand that could keep up the price of silver.

2995. No, certainly not; but it is an absolute addition, is it not, to the silver coinage of the world which existed in 1878? There had been no coinage of dollars for many years before 1878, and there had been no coinage of standard silver in European countries since 1873, and I want to know why 5,000,000*l.* having been absolutely added to the standard silver coinage of the world, the price has gone down since 1878 from 54*d.* to 47*d.*?—Because previously to that demand for silver there had been thrown upon the market the quantity of German silver with the prospect of a further indefinite amount to follow.

2996. Do you know when it was thrown upon the market?—1874.

2997. That is many years before 1878?—But you had a large amount of silver held in *terrorem* over the market up to 1881 by Germany.

2998. You are aware that not nearly all that silver was thrown into the market, and that of the demonetised German silver the larger amount remains unsold?—We knew the amount that was sold, but we did not know the balance that might be sold until in 1881 Germany undertook to make no further sales, for a time.

2999. (*The Chairman.*) I do not think that you quite understand the question. All the causes that tended to produce the depreciation of silver came into operation in 1874, at any rate before 1878. There was one cause that tended in the opposite direction, and that came into operation in 1878; do you not think it a remarkable fact that the chief fall in silver has taken place since the one cause that would tend to its appreciation has been operative?—I think that so far from all the causes of the depreciation of silver having been exhausted prior to 1878, they were more powerful after that period. Prior to 1878 the price of silver had been forced down by the 60 millions sold by Germany and the fear of a further unknown quantity being forced off. But during the five years up to 1878 the coinage of silver went on. In America it was 18½ millions, in Europe 24 millions, showing an annual consumption of 8½ millions. Whereas in the past 7 years from 1878 no silver was coined by the Union and the demand was limited to 35 millions in America and 13 millions in Austria, reducing the annual demand to 7 millions. Other causes were at work from 1878. In that year the Paris Conference met and failed, and similar results attended the next conference in 1881. Meantime a strong movement for the repeal of the Bland Bill arose in America and the President openly supported the anti-silver party. The adoption of gold coinage by Italy intensified distrust in the stability of silver, and lastly, during the period since 1878, while the demand for coinage has fallen off, the annual production of silver has increased 5 millions.

3000. (*Mr. Fremantle.*) But is it your opinion that 5,000,000*l.* a year coined from bullion is inappreciable?—Under the conditions as I have just stated them, I think it is quite insufficient to prevent a heavy fall in silver.

3001. Looking to what the production of the world is?—Yes, and to the stock.

3002. (*Sir John Lubbock.*) With reference to the first question which has been submitted to us, whether

the change in the relative values of the precious metals are due to the depreciation of silver or to the appreciation of gold, or to both these causes, I understand you to say that, in your opinion, it is due to both these causes?—To both.

3003. And without attempting to distinguish how much is due to each, you think that both those causes are largely operative?—I think largely.

3004. I am not quite sure whether I understood your argument with reference to the person who invested money in the shares of a company in a silver-using country. A person invests, say, 3,000*l.* in the shares of a company in India. The shares are supposed to remain intrinsically of the same value, and after a certain time he sells those shares. Silver having fallen, he obtains nominally a higher price for his shares, but still he makes a loss of some 20 per cent. That is your contention, I think, and that is because gold has appreciated 20 per cent.?—Or silver has depreciated.

3005. Silver having depreciated, he realises at a higher price in silver?—He might do that, supposing he sold at the same. I did say in this particular case that he sold at a higher price; his shares had gone up somewhat; his shares were at a premium in silver.

3006. I understood you to say the shares remained intrinsically of the same value. I thought the point was that there was no change in the intrinsic value of the shares?—They were 100-dollar shares.

3007. There was no reason to suppose apart from the changes in the value of the precious metals that they would have been higher or lower?—In the particular case which I gave the premium was the result of the company having been in business 10 years, and paying 10 per cent. dividend, being a successful company.

3008. But he also sold at a higher price?—He got a premium on his shares when he sold them in silver.

3009. Did he get a higher price in consequence of silver having fallen?—I do not think so.

3010. You mean to say that although the silver had fallen he only got the same price?—The premium upon his shares was the natural result of the success of the company.

3011. (*The Chairman.*) It was a silver premium on silver shares?—Yes. The shares were 100 dollars a share, and he sold them, I think, at 107, so he got seven dollars premium upon the shares sold, but that would not involve the relations between silver and gold at all, but arose from the fact that anyone living in the country desired to have those shares because

they gave a 10 per cent. dividend, and he was therefore willing to pay 107 dollars for the shares, and hold them, living in Singapore.

3012. (*Sir John Lubbock.*) Then supposing he had invested in a piece of land, and supposing there was nothing in the circumstances of the case in the meanwhile to alter the value of that land, but silver fell very much in the meantime, he might sell nominally at a higher price, and still make a loss of 20 per cent. when he returns his money?—He does not get more dollars.

3013. Then the silver cannot have altered in value in relation to land?—I want to point out, that prices have not varied practically, as they might have been expected to do theoretically. The price of land and commodities does not rise or fall exactly as your exchange goes.

3014. I understood you to say that silver was depreciated in relation to gold?—Yes, and I say theoretically prices in silver countries ought to rise.

3015. But if they did not rise?—They do in some cases apparently, and not in others; in some cases very slowly and in others more rapidly. A good many other causes came into play; for example, in the Straits Settlements I can see a great many things operating to cause an advance in the price of land that might not arise in Java or British India.

3016. But apart from the question of other causes, when you expressed the opinion that there had been a depreciation of silver, did you not mean that there had been a change in the value of silver in relation to other commodities?—Yes.

3017. That is to say, if silver had fallen other commodities would command *ceteris paribus* a larger amount of silver than they did before?—Yes.

3018. (*Mr. Birch.*) Just now you referred to the very large amount of silver that Germany had thrown upon the market, and the insignificance of the 5,000,000*l.* a year coined by the United States; are you aware of the amount that Germany did sell in silver?—Some 3,000 tons, I think, roughly the value was 60,000,000*l.*

3019. (*Sir T. Farrer.*) I rather gather from the whole of your evidence that your view is that the evils arise during the period of adjustment, and from the fact that things do not adjust themselves so quickly as economists suppose that they would, rather than from any permanent evil?—It is during the period and process of uncertainty and fluctuation that the evils arise, and if you could fix a relation between gold and silver things would gradually adapt themselves to it.

The witness withdrew.

Adjourned till Friday.

Thirteenth Day.

Friday, 25th February 1887.

PRESENT :

THE RIGHT HON. A. J. BALFOUR, M.P., the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.
MR. J. W. BIRCH.
THE RIGHT HON. J. CHAMBERLAIN, M.P.
MR. L. L. COHEN, M.P.

MR. L. COURTNEY, M.P.
SIR T. H. FARRER, Bart.
MR. C. W. FREMANTLE, C.B.
MR. W. H. HOULDSWORTH, M.P.

MR. GEO. H. MURRAY, *Secretary*.

Mr. HENRY HUCKS GIBBS was called and examined.

3020. (*Chairman.*) You are a director of the Bank of England?—A director and ex-governor.

3021. And you have been personally concerned in trade in silver-using countries, have you not?—Yes.

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3022. And besides that, you have given a great deal of attention to the currency question, and to the effects upon trade generally of the divergence which has occurred in the relative values of gold and silver?—Yes, ever since I was at the Paris Conference, at which that question was discussed.

3023. You were one of the English delegates at the Paris Conference of 1878?—Yes.

3024. Do you hold that the effects of any change brought about by this divergence of value depend partly on whether the divergence is due to the appreciation of gold, partly to whether it is due to the depreciation of silver, and partly to both causes combined?—Yes.

3025. What is your opinion as to the actual cause which has produced at the present time this divergence? Has it been due to the appreciation of gold, to the depreciation of silver, or to both combined?—To both combined.

3026. Could you state the causes which in your opinion have led to the appreciation of gold?—The appreciation of gold has been caused by two causes that generally cause the appreciation of any commodity—diminution in the production and increase in the demand; and the increase in the demand has been caused by the demonetisation of silver, and the substitution of gold for it as money in certain nations, just as the depreciation of silver has been caused by the same national act.

3027. Could you summarise in the same way the causes which have led to the depreciation of silver, if in your opinion it has depreciated?—It has depreciated in terms of gold obviously and certainly, because whereas it was before 60*d.* an ounce, it is now 46*d.* or thereabouts.

3028. Has it in your opinion depreciated in relation to commodities?—I should say not. If it has, it is very little.

3029. Have there been any causes which, if uncounteracted, would have caused it, in your opinion, to depreciate in relation to commodities?—Yes, I think it probably would have depreciated in relation to commodities—I speak of India, of which I, myself, I may say, know very little; but I say that it would have been depreciated in respect of commodities.

3030. Will you state the reason why it should have depreciated?—It would have depreciated, I take it, by the falling off in the demand, because it has ceased to be used as money with the same fulness that it was before. The mints of Germany and of the Latin Union are no longer open to the coinage of silver; consequently there is no longer a demand there for silver for that purpose. The silver coins in those countries are still current, and still maintain exactly the same purchasing power that they did, exactly the same purchasing power as the gold there current; but in other countries, in India, for example, where there would naturally have been a great flow of silver into the country, there would naturally also have been something of a depreciation. I speak with great diffidence here, because I know nothing about India. I only speak theoretically. There should, at first sight, have been a certain depreciation of the money as compared with the commodities. The reason why there would have been a depreciation is that silver, their measure of value, was more abundant; and why there is not, I presume, is for two reasons, first, because the demands from here, which demands have been met by Council bills, have been so large that there has not been that great flow of silver into India that might have been expected; and, secondly, because the development of industry in India, the development of the use of railways, (the making of the railways took place of course before the development of industry consequent on railways) has caused more use to be made of silver money. That is to say, there has been more use for silver, and it has therefore not become superabundant.

3031. Will you explain to the Commission how the demand for Council bills has counteracted causes which would otherwise have produced a depreciation

in silver?—Because if there were not Council bills, that is, if people could not remit in Council bills, they would have to remit in silver. The sale of bills and the purchase of bills are so many expedients for preventing the necessity of sending coin in a box from one part of the world to another.

3032. But the settlement by such means of all international transactions, excepting the small balance which must be settled by specie, is of very old date?—Yes.

3033. There is nothing new in that?—Nothing; only, as I am informed, the amount of Council bills drawn of late has been much greater. It would seem that naturally it would be greater, because selling the bills is the same as bringing rupees here. Now they have had to bring more rupees in order to pay the amount of gold that is due from them to the services and to the debts of India payable in gold in this country.

3034. But are you not in that statement confusing cause with effect? Would not the ordinary view be that they had to bring more rupees to England to pay their debts because silver had fallen?—Precisely so. That is so; but I am not arguing that silver has fallen on that account, I am arguing that as the reason that silver has not flowed into India, not as the reason that silver has fallen. Silver has fallen in value, consequently they have to bring more rupees to pay the gold. That is a very good reason why they should have to send less rupees into India, or less silver to make rupees.

3035. Then do you attach any value to the large absorbing power which is attributed to eastern countries for hoarding bullion?—Yes. I would say, in addition to what I said before about the trade in India, that I suppose the facilities of communication have added to the power of the natives of that country to do that which they delight in—hoarding their precious metals.

3036. Then I may summarise your view with regard to the divergence in the value of the precious metals by saying that there have been causes at work which would naturally appreciate gold and depreciate silver?—Yes.

3037. That those causes which have depreciated silver have been counteracted by other causes which have practically kept it at the old level as regards commodities, but that the causes which have tended to appreciate gold have not been counteracted by any such cause?—Yes, not by any such causes. I will not say at once whether there has been anything to counteract the appreciation of gold, but I think there has not of late years.

3038. The result has been that silver has remained, as regards commodities, stationary in value, and that gold has risen 23 per cent. in relation both to silver and to commodities?—I think it is difficult to say that gold has risen such and such a percentage with regard to silver and to commodities, because we know exactly what it has risen as regards silver, but we do not and we cannot gauge the exact amount of the rise as to other commodities, as a mass. Properly speaking, “appreciation of gold” is only another phrase for the fall in price of commodities. But I have used the word in the foregoing answers (as it is frequently used in this controversy) to denote the cheapness of commodities (*i.e.*, dearness of gold) so far as it has been caused by diminished supply of, and increased demand for, gold itself. This is what has been called by Professor Lexis *specific* appreciation of gold.

3039. But still if we hold that silver has not altered as regards commodities, and we know the exact change that gold has undergone in relation to silver within a small fraction, we arrive at the amount by which gold has risen in relation to commodities?—Not quite so. What I say is that silver has not altered in relation to commodities in silver-using countries. It does not at all follow from that that commodities in use or purchaseable here with gold may have maintained a proportionate relation to gold. It would follow, I suppose, all things being alike, that the

relation between gold and indigo and silver and indigo would retain a certain proportion.

3040. However, we may assume that the evils that result in your opinion to the commerce of England and the world from the divergence in the relative value of gold and silver are due chiefly to the fact that gold has increased in value, and not to the fact that silver has fallen?—Yes, I think so. I would add one thing, if you please, to what I said about the reason that silver has not fallen in respect of commodities, and that is this, that silver, like every other currency that has depreciated, makes its depreciation felt last of all among the wage-earning class and in the necessities of life. For example, in a paper-using country where the paper currency has depreciated it will be just the same to the wage-earner. All that he feeds himself and clothes himself with will cost the same as it has cost before, and practically, he will not have perceived the difference, because he buys his rice or whatever it is that he lives upon, and he buys the scanty clothing he wears (provided always that it is not imported clothing or imported material), at the same price for years.

3041. Your view is that there is a species of friction which prevents the wages of labour and the price of necessities from answering directly as it were to any alteration in the value of the currency?—Yes.

3042. Now could you explain to the Commission the exact mode in which this appreciation of gold injures the trade of this and other countries? Are you of opinion that one of the modes in which it has injured trade is by introducing an additional risk into the transactions between the two countries?—Yes, I am.

3043. That, however, is rather due to the uncertainty of the relation than to the fact that gold has risen in value?—Yes. It is the uncertainty in some cases, it is the rise itself in others, a rise which cannot be calculated upon, whereas all other variations in exchange are calculable. I do not mean correctly calculable, but approximately calculable.

3044. Are you acquainted with the actual mechanism by which transactions are carried on between England and India?—By analogy, but not practically myself. I have very little dealings indeed with India.

3045. It has been stated to us in evidence by one witness at least, that the whole risk can be thrown off the shoulders of the exporter and on to the exchange banks, who provide the actual machinery by which the commerce is carried on?—That would be very kind of the exchange banks if they did really take the risk gratuitously. But they do not take the risk without taking an equivalent for it.

3046. They charge something in the nature of insurance?—Certainly, and the more the risk the more in proportion is the charge, or the more out of proportion is the charge.

3047. Is it not the case that those exchange banks practically only run a risk on the balance of the transactions, that as long as there is an import transaction corresponding to an export transaction there is no risk to the bank, and it is only when the one transaction is not covered by a corresponding transaction in the other direction that they run any risk at all?—The risk seems to me inevitably to rest somewhere. It is quite true that the exchange bank may shift the risk both in the export transaction and in the import transaction, but the person who is concerned with either of those transactions must run the risk, or must pay for being saved from the risk; the risk exists.

3048. But the risk to the particular bank exists according to the theory which I have just stated, only upon the balance?—That is perfectly true. I suppose it is the same as if a bookmaker were laying and taking odds about a certain number of horses in a race; on every bet he would run a risk, and so would those with whom he betted; yet the risk to him would only be on the balance of the transactions. But the risk to any one of his opponents is not extinguished or

diminished by the fact of the bookmaker having made himself safe by a series of operations.

3049. But the bank would not have the right to charge, or would be prevented by competition from charging, for more than the actual risk which they undergo; therefore if that risk is confined to the balance of commodities, they would only charge on that balance. If that is trifling, then the insurance will be correspondingly trifling?—That is certainly a most ingenious argument, but I do not think that, practically, it works so. I must say that I have less experience in it than my partners who are on the other side. But as regards the risk which is run, say, in dealings on the West Coast of South America, which is what I am familiar with, it happens that one of my partners is here at this time, and I put to him the general question about the risk of exchange, and he has written a memorandum which I propose to put in. (See Appendix X.)

3050. Is it his opinion that it is a definable and absolute risk that is run?—Yes.

3051. A risk which can be stated in pounds, shillings, and pence?—Yes; only that it is one that varies every day. It can be stated rather in X and Y than in pounds, shillings, and pence.

3052. But it is appreciable?—It is an appreciable and certain risk.

3053. (*Mr. Courtney.*) And do you import and export, or only one?—Both; only one will be the inverse of the other.

3054. (*Mr. Birch.*) What you want to point out is that it is difficult to fix ahead. You can negotiate an operation for the day?—Of course you can; that is the simplest thing in the world, a thing that you can negotiate in half an hour. That is done, but from the beginning of the day to the end it would not be quite certain. Any pair of transactions could, of course, be made to balance one another. There seems to be some idea that exchange is an unimportant factor in the matter. I can only assure the Commissioners, or such of them as have no personal experience, that it is one of the most important in all transactions in foreign produce, that it is and must be continually in the minds of all merchants, and that anyone who should go, say, to Chili, with 50,000*l.* in his pocket, and should take as his guiding principle that he need not trouble himself about exchange, would be, in one respect at least, an agreeable colleague to his neighbours, that his 50,000*l.* would, with more or less speed, pass from his pockets into theirs. Suppose my house in Valparaiso to buy on the 1st of April a cargo of nitrate of soda deliverable on the 1st of September, the purchase must have been calculated on the cost, freight, insurance, and exchange. If at the time of delivery the exchange has risen 1*d.*, the whole operation may become a losing one. You may say he can secure himself by selling bills forward. So he might, if it was the custom of the place, but not always. And the banker who buys the bill from him could, perhaps, secure himself, but that is only transferring the risk, some one must suffer, the risk has to be paid for just as has the risk of a rise in freight, and I think the fluctuations of the former are of more account than those of the latter. I could show what the case has been during the year 1886, as between freight, which everybody would admit is a very great factor, and exchange; and I think I shall show that the fluctuations of exchange have indeed been more important than the fluctuations of freight. But if the risk is considerable under the circumstances as they exist in Chili, much more must it have been when the changes in the value of silver were so rapid and so large. I have admitted that the merchant might secure himself. So he might sometimes in India, but it does not follow that he will or can. I was speaking to an Indian merchant yesterday, and he said that the present exchange in India by telegraph is 1*s.* 5½*d.* but no bank would secure that for June next at 1*s.* 5½*d.*, which is a difference of two per cent., so that it may not be really a security at all, but that shows the appreciation that both sides will have of the risk.

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Mr. H. H. Gibbs. 3055. (*Chairman.*) Do I understand that last statement of yours to mean that the bank charges two per cent. as insurance?—In effect, the bank charges two per cent. as insurance.

3056. Against the possible loss by exchange between this and June?—Yes.

3057. (*Mr. Birch.*) But in any other country in the world, if you go to a banker to fix an operation two months hence, you may have to suffer in exchange?—Oh, certainly.

3058. Therefore, it is not a silver country, but any country in the world?—I quite agree. I have spoken here not from any knowledge of the silver-using country, you see, but of a country where there is a paper currency, though based on silver, and I said that much more would one have to suffer in exchange when the changes, which from causes absolutely irrespective of commerce, were taking place, were making silver fall 1*d.* or 1½*d.*, or rise again 1*d.* and 1½*d.* any week. Of course, I am speaking altogether here about the risk in Chili, where the exchange is counted in paper dollars, based upon silver, and, therefore, sympathising with silver, but with other circumstances affecting them which do not in the same way or not in the same degree affect silver, or may not.

3059. (*Chairman.*) I understand that every bank charges for a transaction which is to extend over, say, four months?—Yes.

3060. What we should like to know is the difference in the charge of the bank according as that transaction which goes over four months is with a silver or a gold using country. That would put what we want to know exactly in figures?—I should say that the case was this: that in a gold-using country, from Australia to England, for example, and *vice versa*, a very small degree of mercantile intelligence will enable the merchant on the one side and the banker on the other to estimate what has been the export and import of the country, and what, seeing (say) the amount of wool that is being brought down, the amount of gold being brought down, and the amount of goods that are coming in, will be the course of exchange in the next four months, but if it is a silver-using country, and you have, in addition to that, the possibility of the United States repealing the Bland Bill, and silver going down all at once to an unknown level; the risk is greater, the insurance for the risk must necessarily be greater, and, therefore, the burden on trade is greater.

3061. I quite understand the nature of the argument. What we want to get at is the degree of injury to trade. Let us suppose that you have two transactions, one with Singapore, which is a silver-using country, and one with Java, which is a country otherwise exactly like Singapore, but a gold-using country. You may go to the bank, and ask them to help you in both transactions; will they ask you more for Singapore than for Java, and, if so, how much more? The reason I chose Java is that one of the witnesses we have had before us explained that Java, which is bi-metallic, has a fixity of exchange with gold-using countries, which Singapore has not?—I imagine that the gain to Java was that it had the same currency, the same money as Holland, and, therefore, it would be regulated really by the exchange between England and Holland, after the arrival of the specie here, but I really know nothing personally about Java. The case seems to be this: It is a mistake to call Java a gold-using country. Its money is the Dutch silver guilder, the standard is bi-metallic, but of what is called the “limping” sort, that is to say, the mint is not at present open for the coinage of silver. In like manner, the money of Pondicherry is the French franc, with the limping bi-metallic standard. In Singapore the standard is silver, the money the Mexican dollar. In India the standard is silver, the money the rupee. If I have business with all these places, and my correspondents make me remittances in specie, for my rupees I shall get 1*s.* 5½*d.* instead of the 1*s.* 10½*d.*, which I should have received in former

years; for my dollars 3*s.* 4*d.* instead of 4*s.* 3*d.*; but from Java I shall receive guilders worth 1*s.* 8*d.*, as they were before 1873, and from Pondicherry francs worth 9¾*d.*, as they were before 1873, the full value at the ratio of 15½ to 1. If silver should go down 5*d.* more in the ounce, it would have no direct effect on the remittances from Java and Pondicherry, while those from India and Singapore would be enormously depreciated. Thus, however much Java commerce may suffer from other causes, it has suffered no abnormal loss in exchange, and is free from apprehension of fluctuations in the future which cannot be even approximately calculated. How much more a bank will charge for securing your forward exchange with Singapore than with such a country depends upon the circumstances of the moment and the courage of the banker.

3062. (*Mr. Barbour.*) The question may be put in this way. In dealing with a country that has got the same standard, say, two gold countries dealing with each other, is it generally customary to buy and sell forward?—It is not customary in Australia. It could be done of course; but the banks would think the application strange. The fluctuations in exchange there, except under temporary and very peculiar circumstances, are very small.

3063. (*Mr. Houldsworth.*) I understood you to use the word risk very much in your argument as synonymous with loss. Now, is it not a fact that if you have a risk which results in a loss, the reverse transaction will result in a gain, or might?—If they were synchronous transactions.

3064. So that risk is not synonymous with loss?—I may have been misunderstood. What I mean to say is, that it is burden rather than loss.

3065. But it is not a burden if it results in a gain?—No; but it is a burden to the merchant, who has to pay the bank. The bank may gain but may lose.

3066. All commercial transactions are risks, and the whole basis of commercial transactions is the balance of profit or loss?—Certainly.

3067. And exchange is only another element, and is not all loss. Therefore, an exchange bank or an exporter, or an importer, if he had losses on the one side over exchange, would have gains on the other, and it might turn out at the end of the year that the balance was on the one side or the other?—Yes, I think it might. I think risk is *cost*, rather than *loss*. That is true, but for all that I must insist that the more uncertainty that you have in exchange the heavier the cost, and the less you are able to compensate yourself.

3068. Then you would mean to say, that if cotton was always at one special price, it would be better for trade than it is?—No, I do not. I think it would be a bad thing for dealers in cotton. It would destroy speculation. I think you would carry my argument *ad absurdum* there. I will quote something here from what I wrote long ago. “Suppose a manufacturer to send two consignments of goods—one to Australia and another to Calcutta, telling his correspondents that 30*s.* per piece is a covering price. The Australian has no difficulty at all; he knows the cost of transmission, and will not buy a bill for remittance on less favourable terms for the manufacturer than he could get by sending specie. His only calculation is as to the possible variation of the exchange between the date of his sale and the date of his recovering and remitting the proceeds; and a knowledge of the exports and imports will give him a reasonable clue to the probabilities of rise or fall in the exchange. The Calcutta merchant can also estimate this; but there is another element on which he cannot calculate in the least when he makes his sale. What will be the price of silver when he comes to buy his bill? Silver is to his English friend a mere commodity, and his remittance to him is in its essence a shipment of that commodity, and on the fluctuations of its price he cannot calculate at all. But, ‘what then?’ it may be answered; ‘These are

“ ‘ only the natural risks of trade. Is our currency
 “ ‘ to be revolutionised because a manufacturer has
 “ ‘ made a loss ? ’ I answer that this is an extra
 “ risk, which should and could be avoided ; but the
 “ particular loss to the shipper is not the measure of
 “ the evil ; for the risk forces him to suspend or
 “ curtail his shipments to the country, whereby both
 “ he and his correspondent in Calcutta suffer ; he
 “ curtails his manufacture accordingly, whereby large
 “ classes in England suffer, and trade is injured all
 “ round.”

3069. (*Chairman.*) I now come to a point on which we have had a great many theories advanced by various witnesses, namely, the extent to which trade is disturbed by an unnatural stimulus to production being given to silver-using countries corresponding with what, I suppose, we must regard as unnatural depression in gold-using countries. Could you explain to the Commission your view of how that result takes place ?—I am willing to agree that the import trade into England has not been unnaturally stimulated by the fall in exchange ; but if it is denied that it is stimulated, I must say that such stimulus is the most natural thing in the world, and certainly exists. I do not know if the Commission has had before it any witness, himself engaged in production in a country having a depreciated currency ; but I assert that no figures, however marshalled, and no theory, however specious, can controvert facts which are seen and known every day by all those engaged in production in such a country. It has been said that Mr. Bagehot never countenanced such a notion. Mr. Bagehot was a man of great ability, and his opinions are always interesting, even on subjects of which he had no personal knowledge ; but I may assure the Commission that my partners, who are manufacturers and merchants in Chili, where the currency is depreciated, as well as every one of their neighbours who have practical knowledge of the subject, would look on this question with the same astonishment as if it had been asked whether Mr. Bagehot countenanced the notion that the three angles of a triangle were equal to two right angles, or that any two sides of a triangle were greater than the third. I shall be exceedingly surprised if any intelligent person, with the like experience, will dispute the general statement that a depreciated coinage decreases the initial cost, and stimulates the production of commodities intended for export. So much has it done so, that I may safely say, that if the exchange should rise from its present point of 25*d.* to the dollar to somewhere between 36*d.* and 40*d.*, not another quarter of wheat would be grown in Chile for export ; many copper mines, which subsist on the low exchange, would be closed, and many nitrate establishments would be in the same case.

3070. Do I understand, then, that the mode in which this stimulus acts is by the diminution of the initial cost of manufacture in the country where the currency is depreciated ?—Precisely.

3071. Will you explain how that depreciation in the initial cost of manufacture has taken place ?—The wages and all necessities of life remain nearly as they were, that is to say, that the dollar being now worth 2*s.* 1*d.*, we pay the same (in meat or in money) as we did when it was 3*s.* 4*d.* to 3*s.* 6*d.* Consequently, the initial cost of a quintal of nitrate is still but a little over two dollars, and is drawn for at, say, 4*s.* 2*d.* instead of 6*s.* 8*d.*, so that there will be 2*s.* 6*d.* less to deduct from the gross proceeds, whatever they may be. If the rise in the value of gold were exactly in accordance with the fall in the exchange, and if it exactly synchronised with that fall, this gain of 2*s.* 6*d.* would simply serve as a protection to the producer in the country of depreciated currency, or, I should rather say, a *bonus*, giving him a compensation for the fall in price in the gold country, which protection other producers would not have. But as a matter of fact, they are not synchronous. The depreciation of the currency may be the work of an hour ; but the rise in the value of gold depends upon an

increased demand for it as money, or a diminished production, both of which need a long time before their effects are felt throughout the mass existing in the world. I have not indeed been in Chili myself, but I have the irrefragable evidence of my profit and loss account, and I find it a very satisfactory witness.

3072. Your theory, as I understand it, is that if the fall in the exchange was exactly synchronous and equivalent to the fall in gold prices, then there would be no stimulus given to the production in the silver-using country beyond what you have described as protection. Will you tell us how there is protection conferred upon the producer in silver-using countries ?—That would be rather a matter of figures. That again I would rather set out afterwards. It would be easy to give a concrete transaction. [*See Appendix X. (2).*]

3073. Does the protection you speak of mean that the producer in the silver-using countries gets a bigger profit than the producer in gold-using countries ?—He gets the same profit as he did before. That is what I take it to be. He would then get the same profit that he did when the dollar was 4*s.* 6*d.* or 4*s.*, or whatever it might be. The profit that he then got, and the profit that he now gets, would be the same ; whereas, the fall in the gold price of silver not being synchronous with the fall in the gold price of commodities here, the fact is that he comes in, not indeed for the higher gold price, but for a less diminished price in gold. One might say that this was the case. The value of nitrate of soda is now 10*s.*, and it was 12*s.* 6*d.* before. To cancel the 2*s.* 6*d.* gain mentioned in the last question but one it ought to be lower ; and in the course of time it would be lower and the 2*s.* 6*d.* gain would vanish. Things would accommodate themselves ultimately, but they have taken seven years to do it in, and they have not quite done it yet.

3074. (*Mr. Birch.*) That means to say that the whole of the fall in the price proceeds from the appreciation of gold ?—Yes, of course other things being equal.

3075. (*Chairman.*) Your view is, that the producer in the gold-using country is at a disadvantage, because he gets less price for his commodities as gold appreciates, but has to pay wages, if not exactly on the old level, at all events more on the old level than the price of gold would justify ; in other words, because wages do not immediately follow the fall of the prices of the commodities which he produces ?—No, I think I would put it the other way, that the man in the silver-using country paying now 4*s.* 2*d.* for the cost of manufacture of his nitrate instead of 6*s.* 8*d.* is at an advantage over the man who pays indeed, perhaps, the same wage in a gold-using country, or no great difference, but pays a substance that has appreciated *pari passu* with the range of prices in the country to which the import is made, or to which the export is directed.

3076. Do you think the advantage given to the producer in the silver-using country, as compared with that in the gold-using country, is due to what I may call the mechanism of exchange, or is it due to the fact, which you have pointed out to the Commission before, that wages do not follow so quickly as other commodities the alteration of the value of the standard ?—It has nothing to do with the mechanism of exchange, so far as I understand what you mean by that. It is due to the fact that the wages and the necessities of life do not follow so rapidly as other things, the fall or rise in the exchange, *i.e.* the fall or rise of the value of that which is paid for them ; but in a gold-using country it must be that though they keep where they were, they must, of necessity, inasmuch as they are paid in gold, bear a relation to the gold prices at home.

3077. Then, in your view, the advantage to the producer in silver-using countries is simply that he pays less wages ?—Less gold wages.

3078. Not less real wages, or, at all events, not more real wages ?—Less gold wages. I mean that the deduction from the gross price of the commodity

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in the country to which it is exported has to be less, because he has only to draw for a certain number of pence instead of a greater number of pence, paying the same wages in the coin of the country, or in the food and clothing which he buys with the coin of the country, than he did before.

3079. While the manufacturer in the gold-using country is practically paying more wages, though nominally he may perhaps be only paying the same, so it resolves itself into a question of wages, not really a question of exchange?—That is a question of wages, not a question of exchange, though it is represented by exchange.

3080. Let us consider the case of a silver-using country which is isolated, and not trading with a gold-using country at all. There, if the currency depreciates, the manufacturers are stimulated?—Yes.

3081. And, similarly, taking the case of a gold-using country not trading with a silver-using country, there, if the currency appreciates, manufacturers are depressed?—Yes.

3082. And it does not really add to our knowledge of this phenomenon to bring in the question of trade between a silver-using country and a gold-using country. The phenomenon itself is wholly independent of the fact that the two countries have different metals for currency; it is, in fact, a question of wages, and not a question of exchange?—No, it is a question of wages, and not a question of what you call the mechanism of exchange, namely, the way in which the thing is drawn for by bill or otherwise. That is so; but it is a question of wages affected by the varied and varying value of the measures of value in the two countries. Such a thing would not happen, of course, if in Chili gold was the currency or notes based upon gold, except so far as notes based upon gold may be over issued.

3083. Then, it is due to the fact, as I said before, that wages feel the effect of appreciation or depreciation of price more slowly than other commodities?—You must say wages, and the cost of the necessaries of life.

3084. What evidence have you for the fact that wages and necessaries feel more slowly a change in the value of a currency than other commodities?—The fact is, that it is so in Chili. Also, I understand that it is the same in other countries. I am told that it is the same in this country. The converse of it is true in this country, because, admitting the appreciation of gold, wages have not fallen in proportion.

3085. (*Mr. Courtney.*) But I think there are some more points to be regarded in that problem. Just consider the case of Australia, at the time of the gold discoveries there, when gold became at once greatly depreciated. What was primarily affected there?—An enormous rise of wages. I quite admit that, but that is an exception to the rule, which was obvious because the necessity of the case made it so. There was a very small number of wage earners in proportion to those who were willing to be served, in proportion to the demand for service. The consequence was that a man said to himself: "I can go to the diggings and get so much a day. If you want me to black your boots you must pay the same." That is not the same as a regular trade going on. The whole thing was varied by that strange and unwonted phenomenon, the discovery of the gold.

3086. Does not that involve a modification of your theory?—I hardly think it does; because, I think, in all other similar cases of which I speak, the same would happen, and in all other similar cases to that of which you speak, the exception to the rule, if I may use such a word, would occur.

3087. But does it not amount to this, that where the depreciation of the standard is due to a greater production of the metal of which the standard is composed in the country itself, there wages and necessaries are the first things to feel it. Supposing, in England, for example, silver or gold were depreciated through a production in England itself, you would

find in England itself that wages and necessaries would be the first to feel it?—It seems to me that there is a great deal in that way of putting it. Your wage-earner would be off to dig his wages out of the ground, unless you could induce him to stay by giving him higher wages out of your pocket.

3088. Your theory only holds where the depreciation arises from changes in the production of the metal elsewhere than in the country, which are felt in another country through trade?—I think I will put it in another way, which, perhaps, would rather confirm what you say. The wage paid in Australia was the very thing that was the produce of Australia, and the very thing that was disturbed in it. The man said: "By going to the diggings I can get wage, that is I can get the gold." That is not at all the case with the man in Chili; for example, supposing there had been a great over-issue of notes, which, I suppose, has been the case, owing to the war in 1879; the man who is earning wages could not by his work produce so many notes a week, while the man who went to the diggings could procure himself gold. I think there is a very great difference.

3089. I think you would find it desirable to re-state your theory, though with that modification?—I should still say mine is the general theory, and Mr. Courtney's an extraordinary exception. In the case you suggest the general theory is varied because the material substance of which the wages are composed is the very same substance which the labour of the wage earner produces.

3090. (*Mr. Birch.*) Do I understand you to say that the increase of the currency would not affect wages?—Certainly it would in time.

3091. In Chili it has affected them, surely?—That is the very point. It has hardly affected them the least in the world. The effect has been trifling.

3092. (*Chairman.*) You have now explained to us broadly your view of the mode in which trade in the silver-using countries is stimulated, and also you have explained to us one of the causes why trade in a gold-using country like the United Kingdom is depressed, that cause being the fact that wages, though nominally the same, have in reality risen. Are there any other evils which, in your opinion, arise from the appreciation of gold in a gold-using country?—I think, generally, that a period of appreciation of the measure of value, that is to say, a period of falling prices, is unfavourable to trade, while a period of higher and somewhat increasing prices is favourable to trade. One reason, perhaps it is a sentimental reason, is that the man who finds that prices are increasing is more disposed, more inclined, to enter into business than the man who finds that his last transaction was destroyed by a falling price, and the present transaction seems likely to be destroyed in the same way.

3093. In other words, it promotes enterprise?—It promotes enterprise. If it is too great, as I have seen plentifully in the history of the trade of this country, it promotes rash speculation, but otherwise it promotes enterprise, and I should add that it is evident to me why a low range of prices is less favourable to trade than a higher range of prices, and that is, that the margin of profit is greater on a high range of prices than on a low range.

3094. But you do not mean to assert, do you, that profits are greater with a plentiful currency than with a scarce currency?—I do not say that of necessity, but I say that profits are greater where you have an improving trade and higher prices.

3095. It is the actual change from a lower to a higher level which produces it?—Certainly; and there may be a change from a higher to a lower level without any such affection of the measure of value.

3096. (*Mr. Houldsworth.*) Do you mean that there is a possibility of a greater profit at a higher range of prices than a lower? I thought you meant the possibility of a larger margin at a higher rate of price than a lower?—Yes, I think it is. I have such an impression on my mind.

3097. (*Chairman.*) But you do not mean us to understand that if gold, we will say, fell a half in value, the actual profits of production, after it had fallen and become fixed at the lower point, would be greater?—No, I do not mean that. What I mean is, that the variation is bad, and the variation in a downward sense is worse for trade than the variation in an upward sense. When you have once got down to the point, and all previous contracts are completed, the thing is pretty much what it was.

3098. Then you have now enumerated two causes why the appreciation of gold has injured the internal trade of England, one depending on the rate of wages, the other depending on the spirit of enterprise, or the reverse, which a fall in the value of the currency produces. Are there any other causes which you would like to call our attention to?—I do not think the matter is quite exhausted. I see increased competition with home industry in certain industries which have been fostered in silver-using countries, and I see much uncertainty in entering into contracts, in these countries, from which one has a prospect of future profits. I must also take into account all investments of money in foreign countries.

3099. But have you anything that you would like to lay before us beyond the general view that it is an injury to manufacturers to find the actual burden of their debts increasing while the nominal amount of them remains the same?—Certainly. Suppose a man has borrowed money to build his mills, for example, he has to pay the same interest continually; but this interest is an appreciating interest, and his profits do not appreciate at all, but quite the reverse.

3100. But you have no special facts to lay before us in support of that general proposition?—No, I do not think I have.

3101. Have you any facts to which you would like to call our attention with regard to the effect produced by the variations in the relative values of the two standards upon the investment of capital in silver-using countries?—Certainly; there is a great deal to be said upon that point.

3102. Is there any other consideration which you would like to lay before the Commission with regard to this part of your examination, which deals merely with the existing evils?—The apprehension of great changes in the future value of investments of capital in silver-using countries, such changes, I mean, as would be produced by a further fall of silver.

3103. To put it shortly, the reason why, in your opinion, the investment of capital in silver-using countries has diminished is the extreme uncertainty the investor feels as regards the return for his investment?—The interest and principal.

3104. (*Mr. Cohen.*) Do you consider the low prices current in countries using the gold standard an advantage or an evil?—I consider low prices, and especially falling prices, an evil in their effect on trade. For the consumer, of course, they are good, if and when the low prices reach him. They are a good to him in themselves, but may be an evil to him on balance, inasmuch as the injury to trade tends to hurt him as well as other people, and he may not have the wherewithal to pay even for the diminished cost of the commodities.

3105. Are they worse than an additional fluctuation and oscillation from one range of prices to another? Disturbing all the relations of trade, and preventing the merchant from calculating, because he has another element to take in besides that of his own goods, what the range of movement will be?—Yes, I think so.

3106. You spoke also just now of the protection which a trader could obtain by buying bills forward; was there not a time during the past year when silver went down to 42*d.*, and it was almost impossible to sell bills upon India at all?—I know so little about India. I should hardly think it would be impossible to sell bills. I suppose one could always sell bills; but it might be very difficult to sell bills forward for fear of the fluctuations of exchange. You could sell

a bill to-day, of course, but you could not say that you could sell a bill to be delivered at such a day in June.

3107. If that state of things happened, of course the merchant would not be able to cover himself against his transactions in goods?—That is so.

3108. He would therefore have to speculate himself?—He runs the risk himself.

3109. What would be the effect upon trade if the United States Government were to cease to coin dollars under the Bland Act?—I should say it is absolutely incalculable. If the dangers of the present condition are what I think them to have been, and if this Commission comes out infructuous, and if the United States suspend the Bland Act, and, more particularly, if they throw their silver upon the market, silver rupees may go down to one half, the dollar may go down to 2*s.*, and I think all the evils of which I have spoken will be aggravated.

3110. And I suppose all those effects will be accentuated, supposing any one Government holding large stocks of silver threw it on the market?—I suppose if one Government does, the chances are that the others will follow through the same gap.

3111. Supposing the effect were to be what you say, and the rupee were to go down to 1*s.*, would you apprehend commercial disaster in the East, and a still greater fall in prices in countries using the gold standard?—Well, it is so difficult to be a prophet; but I should rather be inclined to think that such a fall would be hurtful, because, in my opinion, if the fall that has taken place is hurtful now, you may call it commercial disaster. For example, in foreign countries the disadvantage is great to the merchant who has invested sterling in Lima or in India. If the dollar or the rupee falls 50 per cent. in gold value the natural result is that those people who have made such investments say to themselves, "Let us get our money back as fast as we can," and if they proceed to do so there is a struggle between every one of them to be first, and down goes the exchange. I remember a man, who had sterling in Peru which had cost him, I suppose, 3*s.* 6*d.* a dollar, came to me in great trouble, and said, "The exchange from Peru is 1*s.* 6*d.*; what shall I do?" "Get your money home." "I do not like to at this low rate;" so he waited till it was 3*d.* That is what would naturally be the case, because a great many people had come to the same point themselves; they wanted to get their money home.

3112. If that movement took place, there would be a corresponding fall, of course, in the price of commodities in gold-using countries, to some extent, at any rate?—I think there would be. One cannot gauge to what extent it would go.

3113. Do not you think it would be a great evil that the trade of the world should be at the mercy of any one country by producing such an effect?—Yes, I think it is an exceedingly great evil, and that is why I say it would be desirable to make an arrangement with other nations to diminish or abolish that evil.

3114. (*Sir T. Farrer.*) I wanted to ask you if you had thought at all to what extent Council bills compete with silver?—Bills always compete with silver; that is to say, the natural course of trade is that one pays for commodities sent from one side of the world to another, by bills. If there are not enough bills, then you send specie; if there are enough bills, you do not send specie.

3115. A Council bill or a telegraphic transfer is an order for the payment of silver in India?—Yes.

3116. But supposing silver to be of more value as compared with commodities in London than in Calcutta, silver would go to India, Council bills or no Council bills, would it not?—That is one of the things one cannot answer, because nobody knows whether anybody chooses to send silver. Certainly, if there were no telegraphic communication, and the people of India, creditors and merchants alike, were fools, such a thing might happen. If one could buy a pound of tea in India for one half the money you

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could buy it for here, the people in England and India would know that directly, and telegraphic orders would level it instantly. You would not have to send silver to do it, because it would not be done, the people of India would not sell their tea at that price, and the people of England would give more. There is such a solidarity between England and India, and between every part of the world, that prices level themselves.

3117. You mean that prices would rise there directly?—Directly, without sending any silver. The fact of the possibility of sending any silver seems to me would be enough.

3118. But silver is constantly going to India, is it not?—Yes, the balance of trade will send silver to India, and, what is another thing besides the balance of trade, the delight the people have to make anklets, and hoard the metal.

3119. So that there is a demand for silver in India?—No doubt.

3120. And silver would go like any other commodity if its value was greater in India than here?—No, I do not think it would; because those values would be levelled until they were brought to an ordinary mercantile risk, and then the whole thing would be governed by the balance of indebtedness.

3121. (*Mr. Birch.*) It might be sent for investment, or for payment of produce purchased?—That is so.

3122. (*Mr. Courtney.*) But would it be the case that there would be a flow out of silver from here; the value of the debt in silver would rise in India and would diminish here, even if the level ultimately came to be the same, a movement on both sides, brought about by a movement of the metal?—I do not think so. What is the case in Chili must be the case in India. The price of copper in Chili and in England are as near as the telegraph will enable it to be on a level. Almost all produce has come to be an exchange operation, because of the action of the electric telegraph and the rapid communication by steam. In former times, I think, perhaps it would have been so, that people would hear that there was such and such a stock in India, and that you could buy whatever it might be at a very low price, and they would buy it up or endeavour to buy it up, but I do not think that is the way in which things operate now, and I do not think it can while everybody knows everything about what is passing in each market.

3123. (*Sir T. Farrer.*) Then you think that the fact that silver becomes abundant in the London market would at once raise prices in India, without any transfer either of silver or of commodities?—Of those commodities which are common to England and India, that is to say, the commodities that are usable here and are usable for export from India to England, but the abundance of silver is not so very large as to affect it. Silver is a commodity here, and you might send it away, but there it is money, and it can only be sent either as an investment into India or in payment of balance, or possibly in payment of a particular purchase.

3124. If silver is not sent to India at all, how can it raise prices there?—Because it can be sent; I think that is sufficient to raise the price.

3125. Without its going there, or increasing the currency at all?—It would not increase the currency if it did not go.

3126. So that, being here, it would increase the price in India?—I think you are beginning with a thing that would not happen. You are beginning with a supposition of a price in England differing largely from the price in India, that is in things of constant import. I do not think it would happen at all.

3127. (*Chairman.*) Is it not that any possibility of wide divergence is stopped by the fact that the smallest beginning of divergence of price produces a small flow, one way or another, enough to counteract it?—Yes, that is my meaning; what would really happen

would be this: The movement would be in the commodity, not necessarily in the silver. Tea being dear here, and cheap in India, would be shipped to England; the price would fall here, and rise there, till a level was reached. If the imports turned, or seemed likely to turn, the balance of indebtedness against England, silver would flow into India.

3128. (*Mr. Birch.*) It goes there, and if coined increases the currency of the country just the same as gold here?—Yes.

3129. (*Mr. Barbour.*) Let us assume that a man has got silver in London; he would naturally wish to sell it to the best advantage, and if circumstances are such that he can make more by sending it to India than by selling it to anybody elsewhere he will send it to India?—Certainly. The real answer is, that I do not think the hypothesis of a very great difference of price is a possible one.

3130. (*Sir T. Farrer.*) I gathered, on the whole, that your view is this: you first of all said that exchange was a very real thing, and then you said that the real stimulus that it gave to foreign production was owing to its effect upon wages in the two countries; but I want to ask whether the appreciation of gold, from which the fall in exchange arises, does not take place in gold-using countries, and whether, therefore, the fall in exchange must not follow the appreciation of gold?—I think the fall in the gold price of silver is identical with the fall of Indian exchange.

3131. I was talking of a general fall. I suppose you to assume a general appreciation of gold against both silver and commodities?—Yes, they would differ. They are neither simultaneous, I think, nor corresponding. That is to say, that you may have a fall of 20 per cent. in silver, and you might only have a fall in commodities of 15, but it would be gradually approximating.

3132. And, I suppose, during that period of approximation there might be a real difference in the trade until the prices were adjusted?—Yes, certainly.

3133. (*Mr. Birch.*) But the change also would be affected by the price of commodities over there?—Surely. That is the very thing that I was speaking of before, the price, the cost of production.

3134. (*Mr. Barbour.*) Have you noticed in actual experience whether the rate of exchange alters first, and then prices adjust themselves on one side or the other, or that prices alter and afterwards the rate of exchange is adjusted?—I think the rate of exchange is the immediate manifestation, and the fall of prices comes after that.

3135. (*Chairman.*) Is it not a fact that an alteration in the rate of exchange may arise from a temporary demand for bills?—Certainly; but I spoke only of the alteration in the rate of exchange arising from the divergence of the precious metals.

3136. Is not one of the difficulties of this question the fact that the exchange may represent a great number of different factors?—Yes, and does represent an enormous quantity; and, moreover, I may say that it is quite impossible for any one to gauge the exact proportion that belongs to any one factor.

3137. So that a single fall or rise in exchange may represent a great number of different factors?—Certainly.

3138. (*Sir T. Farrer.*) I think you said that this stimulation of production in silver using countries was due entirely to the effect produced on wages?—Wages and necessities of life.

3139. Then you would not at all agree with persons who, like Mr. Manning, take the difference between the aggregate fall in the gold value of silver, which has taken place during the last 10 or 15 years, as a measure of the advantage given to silver-using producers over gold-using producers?—Except that it has always had the effect of stimulating the production in those countries. I think from the very beginning of the fall in silver that has happened, that the production in silver-using countries as compared

with the production in gold-using countries has been stimulated, and one might naturally have expected that they would come very soon to a level. But if I may take Chili, where a depreciation of the currency has taken place, it has taken its present condition only since the war, which is some seven years ago, and there has been hardly any appreciation in the cost of the necessities of life. In the case of nitrate of soda, I know every single item of the manufacture; the wages and everything else have remained nearly the same.

3140. Do you think that the depreciation of the currency is the measure or nearly the measure of the advantage which the silver producer has?—No, I cannot say. It is a measure, but only in this way, that he does not get the whole amount that it would give him inasmuch as the gold prices have fallen.

3141. (*Chairman.*) Is not the answer to Sir T. Farrer's question that the advantage is a varying advantage. The longer the difference between the two metals exists, the less the advantage;—Yes, quite so; but the movement is very slow.

3142. (*Mr. Barbour.*) If silver falls 20 per cent. relatively to gold, you do not consider that a 20 per cent. bonus is thereby given on exports from the silver-using country?—No, I should be very glad, being a producer in a silver-using country, if it could be proved to be so.

3143. (*Sir T. Farrer.*) Can you suggest any line of statistical inquiry which would enable us to ascertain whether silver-using countries have really been benefited; whether their export trade has been really benefited in the way that you suggest?—I say that my profit and loss account is the only one that I can judge by, and I find that has decidedly benefited, benefited me as a producer in one way, while I have suffered in another, carrying off a loss every year to the debit of exchange account; but happily the benefit to the producer has been greater than the loss to the merchant, I should say than the loss to the capital account.

3144. Now that this fall of exchange has been going on so long, ought not the statistics of import and export in some way or other to show the advantage which silver-using producers have had, or, if not, does it not show that this factor is not so important as it has been made out to be?—It diminishes the advantage to the exporter from this country to the other, but, of course, if imports have taken place, exports must take place. If you buy a penny roll you must pay a penny. The mere amount of the exports, as compared with the imports, seems to me fallacious, because you have to show whether the exports are sent with profit to the people of this country or not. They might be the last despairing stroke of an unfortunate manufacturer, who has lost already 90 per cent. and who is now losing his last 10.

3145. But at any rate you would see it, would you not, in the competition which silver-using countries carry on with gold-using countries?—Where they produce the same thing.

3146. I want to ask you a few questions about investments in silver-using countries. First, with regard to the theory. Investment may be either for a fixed rate of interest, as a debenture, or for undetermined profit, as a railway share, a factory, or a tea plantation, or a mine?—Certainly.

3147. Let us take the latter first, undetermined profit. If I invest 1,000*l.* in a tea plantation, I look to the quantity of tea produced, the cost of production and transit, and the real price of tea, that is the quantity of other goods against which it will exchange, as my source of profit?—Certainly.

3148. When I invest my 1,000*l.* tea is produced and sells so as to give me for a chest of tea of a certain size 1,000 rupees, and this, converted into gold, at, say, 2*s.* = 1 rupee, gives me 100*l.* profit, does it not?—Certainly.

3149. Now suppose silver to fall in value, say, 10 per cent., as compared both with gold and commodities, shall I not get 1,100 rupees for the same chest of tea?

—Yes, if silver falls 10 per cent. in purchasing power, certainly.

3150. And with this 1,100 rupees, shall I not buy 100*l.* in gold as before?—Yes, the fall of silver being 10 per cent. you still get 100*l.*

3151. Well, now let us take the other alternative, and say gold rises in value 10 per cent.; then I shall still get 1,000 rupees for my chest of tea, and this 1,000 rupees will only buy 90*l.* in gold?—Yes, I think that is right.

3152. But will not this 90*l.* be, *ex hypothesi*, equal to the previous 100*l.*?—Yes, *ex hypothesi*.

3153. In this case, therefore, the only loss that I suffer from alteration in exchange is such loss as may be incurred before prices are adjusted. Otherwise I am exactly in the same position, notwithstanding any fall in exchange. That is the case for an investment for undetermined profit?—I think so.

3154. Now let us take the case of investments at a fixed rate of interest. The fixed rate of interest may be either in gold or in silver. First, let us suppose it to be in gold. I invest my 1,000*l.* in a debenture at 10 per cent., when the exchange is, say, 1 rupee = 2*s.*; and I get from my debtor therefore 100*l.*, for which he pays 1,000 rupees?—Yes.

3155. Now let us suppose that silver depreciates 10 per cent., that there is a superabundance of silver; I still get my 100*l.* interest as before, but my debtor has to spend 1,100 rupees to buy it. On the hypothesis that silver has fallen relatively to commodities, including the commodities he produces, will not silver prices rise?—Yes, if the fall in commodities is the same as the fall in silver, the fall as between silver and commodities is the same as the fall as between silver and gold.

3156. For the same goods for which he formerly received 1,000 rupees, will he not now receive 1,100 rupees, and with this he will, without any additional burden to himself, pay me my 100*l.*?—Yes.

3157. Well, now let us suppose with this fixed rate of interest, that gold rises in value 10 per cent. by reason of a scarcity of gold?—Every commodity in the same proportion.

3158. In this case the debtor will get no more silver for his goods than before; it will still be 1,000 rupees, but he will have to pay 1,100 rupees for the 100*l.* in gold which he has to pay me?—Yes.

3159. But supposing that gold rises in nominal value, not by reason of the scarcity of gold, but by reason of the increased production at reduced cost of the articles against which gold is exchanged, including the articles which my debtor produces. In that case, if he has to pay more silver to buy my 100*l.* in gold, he will have more commodities to sell, and, *pro tanto*, he has no additional burden to bear, though I am benefited?—That seems to involve such an enormous number of considerations. Treating all the producers of a district as one man, and eliminating competition, what happens is, that, given a reduced cost of production of the articles exchanged against gold, they will be cheaper in gold price, and the more they are produced the cheaper they will be, and the more the producer has to give away to provide the 100*l.*, or the more he has to give away to buy whatever silver may be necessary to buy that gold. It is assumed that his excess of production will exactly compensate him for the excess which he has to deliver. I cannot but think this particular part of the investigation wholly useless, except as a kind of laboratory experiment, because it depends upon two wholly unknown factors: the equality in time and quantity of the fall of silver in terms of gold and of other commodities.

3160. Now let us take the case of investments with fixed interest in silver. I lend 1,000*l.* for a fixed interest of 1,000 rupees, which, at 2*s.* the rupee, gives me 100*l.*?—Yes.

3161. Now let silver fall 10 per cent. My 1,000 rupees will now only buy 90*l.*, and, as gold remains constant, I lose 10*l.*, whilst my debtor is not affected?—Yes.

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3162. Now let gold rise 10 per cent. in value, my debtor is unaffected, whilst I can buy only 90*l.* with my 1,000 rupees. But that 90*l.* will, *ex hypothesi*, be worth as much as 100*l.* before?—Supposing prices to be adjusted. As matter of fact, they never are.

3163. Consequently, with fixed interest there are two cases in which contracts are affected. If the interest is paid in gold, and gold rises in value from its own scarcity, silver remaining constant, the debtor has to pay more. If the interest is paid in silver, and silver falls, gold remaining constant, the creditor receives less?—That is really a summary of what we have said before.

3164. Therefore, on the whole, looking to theory, and supposing prices to be adjusted, the effect of a fall in silver or a rise in gold, on gold investments in silver-using countries will be as follows. Where the investment is for undetermined profit, it will not be affected by the fall in exchange, whilst, if it is for a fixed rate of interest, the fall in exchange will, in the specific cases I have mentioned, injure the debtor in one case and the creditor in another. To what extent does your experience lead you to think that apprehensions of such losses have prevented investments?—Certainly they do. Of my own knowledge I can tell you an instance, if you like, not precisely of my own business, but one where a very favourable contract was offered by a foreign country for the carrying out of an important work, and it was impossible to venture upon it because of the apprehension of the fall in exchange.

3165. Was that an investment for fixed interest to be paid in silver?—Profit.

3166. Undetermined profit?—Both, because there were debentures supposed. That does not matter, because in either case you see it is profit as regards the operation itself, though not as regards the person entering on it. I mean as regards the operation itself. You have to make up your debentures out of the profit of the transaction. The payment for work done was very handsome payment, but the house concerned said:—“No, we do not dare. Give us a sterling contract, and we are quite satisfied.” “No, no,” was the answer, “we will not do that; we give you even better terms; but we do not dare to do it.”

3167. (*Mr. Courtney.*) Was that in a silver-using country?—Yes; the business was carried on in some measure, because it was already begun and in progress, and the Company was between the sword and the wall. They must either risk having to abandon at much loss, or go on little by little; but neither did they dare to carry out in full the silver contract, nor did the authorities dare to give a gold one. The company went on bit by bit, not putting new money into it, but investing in it the accruing profits, which they could not bring home without loss.

3168. But they would not commit themselves to a larger venture?—Yes; that is so. I cannot say of my own knowledge, but I suppose had it not been for the difference in the price of silver there ought to have been very large additions to the railway network in India, but who will dare to do it? The Government indeed dare at this moment, because I think the Rothschilds are bringing out one at 4 per cent., but how few new railways there are, no doubt in consequence of the present state of things! The Government find they have to guarantee some, but it is for political reasons, and they do it, loss or no loss.

3169. Has there been greater difficulty in procuring investments in Indian railways since the fall in silver began?—I do not know, but I understand it is so.

3170. (*Mr. Barbour.*) There is a Government guarantee in the case of Indian railways, and it is always in gold, with the single exception of one railway which was made some years ago by a private company at its own risk?—The risk there is on the Government. There is China, that has hitherto not had railways; but they say that the Chinese are willing to have railways now, but where will you find the

English enterpriser who will put his money into China to be paid in silver?

3171. (*Mr. Chamberlain.*) You do not know, as a fact, that the Chinese are willing to have railways?—No. But if it were so, as is said, I say no English enterpriser would be willing to invest millions in that country.

3172. Not on a silver basis; but I do not understand why they could not have done it on a gold basis?—There would, I suppose, have been no difficulty then, because the risk would be borne by the Government.

3173. That would not matter to them, because they would buy everything on the gold basis. As regards a new contract, it does not matter in the least. They buy their iron, and every part of their materials for the line, at the present depreciated price in gold. That being so, it does not matter to them?—Of course, if it is equal, and not varying at all. That involves a question of future fulfilment of contract. If it were in silver, there might be a very great difference in the value of the silver that they would receive. If they are to be paid in gold, it is all very well; the English people would like it very well, if they are paid in gold, but the ultimate risk of providing that gold would rest with the Chinese Government, supposing it was the Chinese Government.

3174. (*Sir T. Farrer.*) Have there not been considerable investments in India in tea plantations and otherwise?—Yes, but I think that they have not been very happy ones.

3175. They would not be affected by the fall in silver?—They would get the benefit of the lowness of wage.

3176. And they would depend on the quantity of tea that they produced, and not upon the relation of gold to silver, would they not?—They would depend upon the quantity of tea produced, and upon the appreciation of gold.

3177. They would have the advantage that you have stated that belongs to silver-using countries?—Of course they would.

3178. Do you know whether, since the fall in exchange, that is, since 1870, investments in silver-using countries have been less frequent than before?—No, I cannot say.

3179. (*Mr. Courtney.*) I should like to know a little more about your experience in South America. With what countries?—Chili now; Peru in former times. Formerly, both in Peru and Chili, now in Chili. Happily, we got our capital out of the Peruvian business before the fall took place, to such an extent, at least.

3180. Chili is a silver-using country?—It is on the basis of silver; it is, in fact, a paper currency, since the war with Peru, which was about seven years ago.

3181. Since then it has been a depreciated paper currency?—That is what it has been. It would have been very much more so, only the result of the war was the taking of a considerable amount of territory and population, which therefore absorbed a great deal of the paper money.

3182. What is the average premium on paper?—It is reckoned in the number of pence to the dollar. I have known the dollar, I think, at 45*d.* in former times. That is about the par value there. It is now 25*d.* or 26*d.*, but that has not been the difference that has resulted since this depreciation.

3183. That makes 45 per cent. depreciation?—Yes, but that has not taken place in this time, you know.

3184. No, but that is the fact with which we are starting?—Yes.

3185. Do you think that the reasoning which applies to a country really using silver is applicable in the same terms to a country which has a depreciated paper nominally resting on silver?—Yes, I think so. Not precisely the same, but the same sort of reasoning would; and you must bear in mind that the holders and users of these paper dollars have always in mind

the probability and the possibility of the redemption, and of a return to specie payments.

3186. You are a producer in Chili?—Yes, and a merchant also.

3187. You employ labour there to extract this nitrate of soda, which you send home?—Yes, which we perhaps send home, or we sell on the spot. The proper thing for a manufacturer to do is not to send it home; he makes himself a merchant if he does that.

3188. Without investigating too closely the method of your trade, can you explain to us how, in the course of your trade, you have made those gains to which you have referred?—Whereas I used to pay 3s. 6d., we will say, or whatever it may be, for the labour, I cannot tell you the sum that I have paid, because I do not manage it myself, or know anything except what my accounts show of the management, but I now pay, say, 2s. 1d. for the cost of the labour instead of 3s. 6d., or whatever it might be; therefore I have less to deduct from the gross proceeds when they come home, so, to those who buy from me, I am able to sell at a price that will enable them to do so profitably.

3189. You are paying the wages of the people who produce this in a currency which is depreciated?—Which is depreciated, and yet the wages are the same.

3190. And there has not been a corresponding fall in the commodity which you produce?—And there has not been a corresponding fall, that is exactly right. When I say there has not been a corresponding fall, you know the fall in the commodity varies with all manner of things.

3191. There may be a fall due to other causes, but there has not been, in your time, a corresponding fall?—A corresponding fall from the appreciation of gold? There has been a fall from the appreciation of gold, but not a corresponding fall.

3192. Then the industry of that character in that country has become unusually profitable?—Yes, I think so. The statement that I have put in here [see Appendix X.] from my partner relates to wheat rather than to nitrate of soda, because there are peculiarities in the condition of that manufacture. It is a kind of monopoly; though it is not a monopoly of mine, it is a monopoly, or nearly so, of the province of Tarapacá.

3193. Our argument does not depend on what the substance is; the economic use of the argument is that you are producing something there through the assistance of paid labourers, whom you pay at nominally the same rate as before, but practically at a much reduced rate, and that product which you get you sell without any corresponding reduction of the rate?—Without a corresponding reduction.

3194. And thereby you get great gains. Well, if that is so with respect to your trade, is it not a strong inducement to anybody to embark in industrial production in a country like that?—True, but then, as I told you, I do not mean to say that the ultimate result has been good throughout. The loss on every 1l. of capital that I have there is considerable.

3195. Possibly to you, who invested your capital some time ago, but to a person going in now and investing capital?—If he was quite confident that there would be no further reduction in silver, or no further over-issue of notes, of course he would not suffer, but it is the apprehension of future fall that seems to me to be the dangerous thing. There is plenty of loss going on year by year for those who have invested their money abroad, but there is for those who are thinking of investing, the apprehension of future fall.

3196. But if you invested in that way, taking the two variations separately, that of depreciation of silver through a greater quantity of the metal, and the depreciation of the paper, not taking the first one by itself; if you invested now in that country in any industrial undertaking, would not the price at which that could be realised in future vary with the depreciation of silver, so that if silver went down you would get a greater quantity of dollars? Supposing

you took out 1,000l. and bought land, or a mine, or any other industrial machinery in Chili now, and in consequence of a further increase of silver, silver went down, would not you be able to sell what you had bought at a price increased so as to compensate that?—It does not follow that one should. Against the depreciation of our capital account we have to set the presumable increase of the value of the land or whatever property it is; but the value of a thing is what it will sell for. It will not actually sell in fact for that. The things do not move in the same plane.

3197. The same rapidity, perhaps?—No, they do not.

3198. Is it to the same extent or the same rapidity?—Both.

3199. They will, perhaps, ultimately?—They will not with any certainty, as we know, because we had necessarily to buy a good deal of land (the substance is found in the earth, as you know), and we have no certainty of being able to sell if we would.

3200. You are not certain about that, that they will not ultimately come to the same?—It would be after my time. As far as I am concerned, they will not.

3201. Is not there a movement already in respect to the price of land?—I have not seen it. I have not heard of such a thing. I know there are some of the nitrate grounds that we should be very willing to part with, but I have never seen any time when we could get what we gave. The land is of no value at all, it is prairie value really until you put up a manufactory. Well, the fear of having to invest capital in that manufactory, which capital may have to return afterwards at a lower gold price, deters people.

3202. You have to buy land from time to time?—We have had to. We are not doing it any more. We have not had to do so lately except small pieces where, here and there, there has been a dispute as to boundaries, whether a certain piece belongs to us or not; then one may have to buy it. These purchases are not of any moment.

3203. Do you find any variation in the scale of price in these little lots that you buy?—No.

3204. They are not important enough?—I do not think they are important enough; and, besides, in those countries you have got to give what the man can ask for it sometimes; sometimes the man has to take what you will give him for it.

3205. Now you said, with respect to your nitrate of soda, that it is a bit of a monopoly?—A monopoly of the province, you may say the whole of that part of Chili. Well, the effect of this stimulus given to that production is that a multitude of producers turn up. It is a monopoly in this way, because from time to time we agree amongst ourselves. There is a nitrate committee there, of the *salitreros* as they are called, and they agree how much they will produce. They now produce 10,000,000 quintals, and formerly they used to produce 7,000,000. Of course there is this great difference, that this committee of *salitreros* is not able to a nicety to control all the people. Some of them are always trying to break through the bounds that have been set to them. Thus, therefore, a larger amount of the commodity is produced than ought to be produced, but whereas I remember some years ago we said we should be satisfied to go on with the business if it was confined to 6,000,000, now we should be perfectly contented if it were confined to 8,000,000, and we see no great danger if there were 10,000,000 quintals produced, and the reason of that is that the demand has so greatly increased in France and Germany for sugar making.

3206. Apart from this syndic or ring, you would suppose that, since people are able to produce at no considerable increase of cost, wages remaining the same, and are able to sell at relatively a much greater price, there would be a competition between the producers, bringing down the price to something like the old level?—Yes, and that would be immediately the effect. Supposing the combination is broken down the immediate effect would be that the price would fall considerably, and that the smaller producers will be wiped out. They will cease to exist after a time. They will

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not dare to exist, because the larger producers, which have greater facilities for carrying down the nitrate to the coast, will be able to go on while those who are at a distance will not.

3207. Therefore your experience as a producer in Chili would not justify an expectation of a corresponding experience among the producers of wheat in the Punjab?—No, reasoning merely from analogy, I should say that it would not; but my reasoning, which you will see in this paper that I put in, as regards wheat in Chili is exactly the same as wheat in the Punjab, because there there can be no combination at all.

3208. Is wheat exported much from Chili?—Yes, I do not know how much, but it is. It is one of the regular exports, wheat, copper, and nitrate of soda.

3209. Has the export been increased since the depreciation of silver?—Yes, and would stop instantly if the exchange went up sufficiently.

3210. It has gone on increasing since the depreciation of silver?—It has gone on increasing. I have only told you what I have been told. My partner says that if the exchange would rise to 36*d.* or 40*d.*, or thereabouts, there would not be a single quarter of wheat produced for export.

3211. Would that be because the merchant would lose his profit?—Because the grower would lose his profit. The wheat-grower would have to pay his wages in dollars that were worth 36*d.*, instead of in dollars that were worth 25*d.*

3212. I should have thought the person earning the wages—the farmer—the person who works only through hired labour?—I should say what they call the *hacendados*, the landowners. The landowner is the man who immediately begins to cry out if the Government begin to talk of the resumption of specie payments. He says, "I shall be a sufferer; do not do it."

3213. (*Mr. Chamberlain.*) Do I gather from your evidence that, in your opinion, this state of things, this constant variation between the price of the two metals, has inured to the advantage of the wage-earners, that is to say, that in countries where gold is appreciated the wage-earners are better off, because they get the same amount of wages, and the wages are worth more, whereas in silver countries they get the same wages, but then the necessities which they buy with those wages have not increased in price as compared with silver?—They get the same wages.

3214. They get the same wages in silver, and what they have to buy with silver is the same?—They remain where they were; and I think I may add that I suppose this to be the difference, that in a country of more restricted trade and with less facility of communication, where the wage-earners are less independent of the wage-payers, the difference of the value of that in which they are paid takes a longer time to get to them than it does in a country differently conditioned; consequently there is hardly any fall in wages in Chili, whereas here in England, as we learned on the Commission on the Depression of Trade, the rate of wages keeps up but the wage-earners are fewer, that is, the wage fund is diminished.

3215. Then I think I understand that you consider the great evil of the state of things is the uncertainty which affects all transactions?—That is so.

3216. Well, is the uncertainty caused by the variation in the metals greater than the uncertainty which exists from other causes?—No; but the uncertainty which exists from other causes is constant uncertainty, if I may use the phrase. It is constant; it would have been the same whether or not the currency had been depreciated.

3217. You say that this uncertainty interferes with investments in silver-using countries?—Yes, because there is an additional danger to them that there was not before. Before, there was always the danger of the balance of trade being unfavourable, and your remittance coming back with a considerable deduction from your original cost. Now, there is this additional uncertainty.

3218. The objection to investment arises from the

apprehension that there may be a further fall?—Yes, I should say that is so; and, further, the depression in the minds, the mental feeling in the matter of the present state of things, makes people indisposed. A man who has been suffering, who has been losing year by year, feels less disposed to go on.

3219. Can you name any investment for capital in which there is not an apprehension of a possible fall?—No; but I find, in many cases at least, that if a possible fall has been turned into an actual fall for a series of years, one feels less disposed to go on in that country.

3220. And is the argument for making anything like a fixed relation between the two metals stronger than an argument for making a fixed relation between, say, iron and gold, or cotton and gold?—Yes; very much stronger, the thing is absolutely and wholly different; the latter is impossible, the former is not only possible, but has been done for 70 years.

3221. (*Mr. Birch.*) Do you attribute the fall in prices, to any very important extent, to the appreciation of gold?—Yes, I do; to what I have called before *specific* appreciation of gold; though it is impossible for me to say to what extent; only that is my impression.

3222. And, to some extent, from the competition from silver-using countries?—Yes.

3223. You have spoken of the great inconvenience of uncertainty in exchange?—Yes.

3224. The trade of the United Kingdom with silver-using countries is naturally influenced by the exchange ruling between the United Kingdom and those countries?—Yes, certainly.

3225. But several of the so-called silver-using countries have a paper currency, based, it is true, on silver; but often, as in the case of Russia and several South American States, at a heavy discount?—Yes, certainly.

3226. This depreciation of currency in respect to the standard of value must be taken into consideration by the merchant trading with these countries, in the same way as he has to take into his calculations the variations in the price of the standard silver?—I say he, no doubt, has to take it in the same way, but not in the same degree, because the printing-press mine is much more easily worked than the other mine. In the case of paper-using countries, there are possibilities of further danger of a different kind, as you know.

3227–8. And therefore I say that the variations in the value of the paper currency are more frequent and often more important than any variation which has hitherto taken place in the value of silver as compared with gold?—They are often more important, if not more frequent; for example, as I said just now, I have known the dollar 46*d.* in Peru, and it is now 2*d.*, and the same with Buenos Ayres, I believe. But those fluctuations are absolutely irremediable by us; those caused by law can be remedied by law.

3229. I understood you to say that from some information which you got the other day, an Indian bank charged 2 to 2½ per cent. profit for selling exchange forward. Can you tell us if the same charge would be made for purchasing forward, because if so they must have very good business?—It might be very good. It would depend upon the risk.

3230. That would be 4 per cent. on the transaction?—Four per cent. by way of insurance; this is merely information from others. It is not a part of my own business.

3231. (*Mr. Barbour.*) I think your evidence was to the effect that, the exchange being now at such and such a rate, the banks said they would buy a bill in June next forward for a certain lower rate?—Yes.

3232. The whole difference would not be profit to the bank if the exchange should happen to fall, between this and June?—Exactly.

3233. (*Mr. Birch.*) They would make the two operations. They would buy and they would sell. I might be buying and you might be selling, and I want to know if they would charge me 2 per cent. for this risk which you have referred to, and 2 per cent. for yours?—I do not suppose it is so. This is what I understand to be the case. A merchant is

shipping to Calcutta, and wishes to secure his exchange four months forward. The exchange of a few days back was 1s. 5½d. The Bank in ordinary times would charge ¾d.; so that his exchange would have been 1s. 5¼d., but now, the exchange being 1s. 5½d., the bank will quote no rate forward, the uncertainty is too great. The bank would have no opportunity of making the supposed double operation.

3234. From an agricultural point of view, the benefit to arise to the agriculturist could only come from a suspension of production in silver-using countries, throwing the demand upon this country?—Yes, certainly.

3235. That is to say, that the Indian wheat, as I suppose, and the Chili wheat, interferes with the agriculturist here?—Of course it does.

3236. Sir James Caird said, in his statement before the Commission on the Depression of Trade, quoting a friend who he stated had had great opportunities of knowing the state of matters in America: "In America they now produce as much in six months as they can consume in twelve, the consequence of which is that there is a superfluity of everything, and that diminishes the price of everything"?—Of course I have never said, I do not suppose anybody has said, that the depreciation of silver or the appreciation of gold is the only offender; there are other causes.

3237. They contributed very largely to the fall?—Other causes there must be. I suppose that is rather a hyperbolic statement of Sir James Caird's when he speaks in that way. I do not know what the real facts are about that. That might be judged by the amount of imports of bread stuffs from America.

3238. I do not quite clearly understand what you said

in reply to a question that was put as to the disadvantage of low prices; who suffers, the labourer does not suffer?—The labourer will suffer, the fall of price seems to be coming down to labour. The tendency is there, and there are fewer labourers employed in agriculture, the very thing you are speaking of. Land is being gradually turned from arable to pasture, and for every 200 acres of land you turn from arable to pasture, you turn six men out of employ. What we were told at the Depression of Trade Commission was that wages were falling in a great many places.

3239. I saw a report the other day that the Ever-sham market gardeners complained that tons of the fruit grown last year was unsold and allowed to rot. Would you attribute this to depreciation of fruit or to an appreciation of gold?—I do not know what was the cause, but I have no doubt there must have been facility of getting fruit from France.

3240. That would have nothing to do with the currency?—It may or may not, of course, if the price of gold was high, the price of fruit would be low.

3241. (*Mr. Barbour.*) You said that the merchant could, by paying something, in many cases cover his risk by dealing with a bank buying or selling forward?—Yes.

3242. And if the merchant had two transactions at the same time, buying and selling, he could balance the one against the other?—I suppose he could.

3243. And if he abandoned the use of money altogether, and had recourse to simple barter, he would be free from risk caused by fluctuations in exchange?—Yes.

3244. You do not think it desirable that trade should be reduced to barter if it can be avoided?—Certainly not.

The witness withdrew.

Adjourned till Monday, 28th February.

Fourteenth Day.

Monday, 28th February 1887.

PRESENT:

The RIGHT HON. A. J. BALFOUR, M.P., the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.

MR. J. W. BIRCH.

THE RIGHT HON. J. CHAMBERLAIN, M.P.

MR. L. L. COHEN, M.P.

MR. L. COURTNEY, M.P.

SIR T. H. FARRER, BART.

MR. C. W. FREMANTLE, C.B.

MR. W. H. HOULDSWORTH, M.P.

MR. GEO. H. MURRAY, *Secretary.*

Mr. A. D. PROVAND, M.P., was called and examined.

3245. (*The Chairman.*) You are a merchant, are you not, connected with the trade with China and Japan?—Yes.

3246. Are you an exporter from this country, or an importer?—I am an exporter from this country.

3247. You are not at all concerned with the import trade from China?—I have not been so for about 13 years.

3248. But you have been an exporter for how long?—Since 1865.

3249. So that you are well acquainted with the details of the trade, as the trade was carried on before, as well as after, the alteration in the relative value of silver and gold?—Yes.

3250. That alteration first began to make itself sensibly felt in the year 1874?—Yes, about 1874.

3251. Could you explain to the Commission what differences were introduced into the method of carrying on the trade in consequence of the fluctuations which began at that date?—The difference was in financing. Before the fall in silver all goods exported

to China or Japan were drawn for in this country, and the bills were renewed until the proceeds of the goods came back. Until 1874 exchange fluctuations were small, and they could to some extent be calculated upon. The active season for the shipment of produce from China and Japan is from June to September, and the rates of exchange at all the ports in those countries averaged higher during those months than they did for the rest of the year. Trade was therefore not in any way hampered by unforeseen fluctuations in exchange.

3252. Will you explain in rather more detail precisely how the operation was carried on?—I may say at once, to save trouble, that the same exchange conditions apply to all the ports in China and Japan with this difference, that in selling bills in this country the rate would be relatively rather higher for drafts on the principal ports. The bank might make a rather lower rate to the outside ports.

3253. Now, suppose that in the year 1873, before the fall in silver began, you sent out a shipment of

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cotton goods to Shanghai?—I bought an invoice of cotton goods in Manchester, and shipped it off. I drew on London for the amount of that invoice at six months, and if the proceeds had not returned from China within the six months, I had the bill renewed for, say, three months. By that time the proceeds of these goods would be back again in my possession.

3254. In what form?—In a sterling bill. The consignee of my cotton goods would sell them for taels (if in Shanghai), deliver the goods, get paid his taels, and go to the office of an Eastern bank in Shanghai, say the Oriental or any bank, and buy a draft on London, which he would remit to me.

3255. (*Mr. Fremantle.*) What is the par value of a tael?—It has no par value; it is a certain weight of silver (there are no coins), and this weight is not the same at all the ports in China. Its equivalent in sterling would be its market value per ounce as silver at the time being.

3256. Your consignee would sell the goods?—He would sell the goods, receive payment in taels of silver, go to the bank, and buy a draft in sterling on London, which he would remit to me. With the proceeds of that bill, when I received it in London, I would retire the original acceptance, and the transaction would be at an end.

3257. And if that bill did not come within the six months which the original bill was to run?—I renewed the bill in this country for three months. If it did not come in nine months I renewed it again for a further three months.

3258. (*Mr. Birch.*) But then you were trading with other people's capital?—I am describing how 19 invoices out of 20 were treated. Even the richest houses in Manchester would not use their own money. They would draw on London and discount the bill in the open market.

3259. And then renew again?—And renew again. A very wealthy house would sometimes not renew. This does not apply specially to the China trade, what I am speaking of just now relates to all foreign trade in respect of which bills are drawn and discounted in this country. Some houses will not accept renewals. They will accept once, but they will not renew. They will take a bill up at maturity, and remain out of their money until the proceeds come back.

3260. (*The Chairman.*) That being the general account of the way in which the business was conducted before 1874 would you now come to the method in which business is conducted now?—Well, the position we have arrived at at the present moment has been gradual. For some time after 1874 there was only a certain number of merchants who had become frightened about exchange. It was in 1876 that the great alteration in the method of financing shipments was made, and then a large number of those who traded to the East instead of drawing on London became so frightened about the fall in silver that they drew on Shanghai in taels, or on Hong Kong or on Japan in dollars, as the case might be. The shipper would draw a bill on Shanghai at 60 days, which a bank in London would buy at a rate of exchange they (the banks) fixed themselves, and this saved him from any further risk of a fall in the exchange.

3261. It transferred the risk to the bank?—It transferred the risk to the bank of a fall in exchange.

3262. (*Mr. Birch.*) But on the renewal?—There could be no renewal of such a draft in this country, because this draft went out of the country. It was drawn on the consignee in Shanghai against the goods, and in 19 cases out of 20 the bill of lading and the policy of insurance would be attached to the draft when it was handed into the office of the bank here in London.

3263. (*The Chairman.*) Then an exporting merchant in England before 1874 used to draw upon his own credit?—He used to draw it might be on a bank in London or elsewhere, or on a firm, in which case he would pay a commission to them for accepting his

draft, or it might be on a house that was doing the business with him on joint account.

3264. But now he draws on the consignee to whom he sends out a shipment?—To a large extent. There are still some merchants who draw in Manchester on London. There are two ways in which it is done. He may draw on London and run his risk of the exchange, waiting till the proceeds came home.

3265. That is a method which has been given up?—To a large extent. The other way is often done. He draws on London for the sake of getting cheap money, and at the same time telegraphs to his correspondent in Shanghai to buy forward as much exchange in sterling as the proceeds of the goods will amount to, thus ensuring himself a certain return for the goods when the proceeds come home. This is done to an enormous extent with India, but to a smaller extent with China, on account of difficulties which I will by-and-by point out.

3266. Can you explain to the Commission in what way the new system compares unfavourably with the old system, as far as the exporting merchant is concerned?—In exporting to China we suffer far more on account of the fluctuations in silver than those do who trade with India. One reason is the fact that the India Council being the principal sellers of bills on India, practically enables them to control the market rate of exchange. I think we should clearly understand this, because, as I will show you afterwards, our way of doing business with China makes the rates we can obtain from Eastern banks for our bills on that country far less favourable than the rates of exchange obtainable by merchants shipping to India for their bills.

3267-9. I understand what you are coming to, but I first want to understand how the fact that the India Council are the great sellers of bills, and that they, therefore, control the rate, is any advantage to the India merchant?—The India Council sell annually about 14 millions sterling of drafts and telegraphic transfers, which are payable in Calcutta, Bombay, and Madras. They are, therefore, the largest sellers of exchange, and practically control the rate. There are two ways in which you can remit to India. You can buy silver and send it out there, or you may buy telegraphic transfers or bills from the India Council, which are collectable out there. They sell 14 millions sterling annually of these bills. The only competition the India Council have in selling their bills is with silver, and there are only a few millions of silver sold in London every year. The whole of the export from Europe to the East last year was between six and seven millions, and of this the sales in London were probably not one third. Another reason is that those 14 millions of Council bills are sold by open tender.

3270. Then is the advantage which the India merchant obtains from this system entirely due to the fact that the India Council flood the market with bills, and drive the price of bills down?—No, the effect is to enable Eastern banks to provide themselves readily with cover for business already done or to be done in India. The advantage to the India merchant is that the India Council, by their large, open and regular sales of Council bills, really stand over the banks, so to speak; the result is keen competition between the banks who are willing—indeed, I may say compelled—to buy merchants' drafts, and sell their own on India or on London at close rates.

3271. Is there any other reason?—Then India has several shipping seasons during the year succeeding each other, namely, for seeds, cotton, indigo, wheat, rice, &c. There is, therefore, a large export business doing from India during a great part of the year, and most of those exports can be, and are, sold "forward," such as cotton, seeds, rice and wheat. Few shipments of these articles are made on speculation, that is, shipments that are not sold until after their arrival in this country. The usual way of doing this export business is to take the price at the shipping port, the rate of exchange for drafts on London, and to offer the produce by

telegram, at a laid down sterling price. If a sale be effected on this side, the offer is accepted, and the merchant in India buys the produce and fixes the exchange. The transaction is then complete, and much business is done in India in this way for future periods of two, three, four, five or six months, and sometimes even longer.

3272. I thought you explained to the Commission that sales of precisely a similar kind were done with Shanghai?—No, nothing like this at all.

3273. Do they differ in quantity or in time?—There is no forward business with Shanghai, or very little. As the produce business from India enables the banks to buy bills on London "forward," they in turn sell their own bills on London "forward," chiefly as remittances for proceeds of imports sold in India. They thus obtain "cover" transactions, and as the sale on India by the India Council of 14 millions per annum to a large extent controls the rate of exchange, competition is created between the banks, and under ordinary circumstances, in a free market, the Indian banks cannot obtain a rate of exchange that will cost the merchant more than, say, 6 per cent. per annum for the use of their money on a draft sold to a bank in London against a shipment of manufactured goods to India. That explains how the "forward" business is done with India. All the before-mentioned conditions are wanting in the trade with China and Japan. There is nothing similar to India Council bills sold on these countries, and China and Japan have only two principal exports, tea and silk, most of which is shipped between June and September, and tea cannot be sold "forward," but only after it has arrived and been sampled. The banks are, therefore, unable for the greater part of the year to obtain "cover" business in China and Japan as they do in the trade with India, and on this account they will not buy drafts on China and Japan against shipments, except at rates which cost the merchant about 12 per cent. for the use of the bank's money while the draft is running, and he must either pay this to the bank to be relieved of the risk of a fall in exchange, or wait the return of his proceeds, meanwhile taking the risk himself.

3274. What that comes to is that the Indian trade can be done on cheaper terms, because there is an export transaction corresponding to every import transaction?—Yes.

3275. But the China trade cannot be done on such terms, because there is not an import transaction corresponding to every export transaction; that is a summary of it?—Yes, that is the summary of it.

3276. The only part that is not quite clear to me is what connexion there is with the fact that the India Council are the great sellers of bills?—If the India Council did not do that, and "cover" business was not obtainable as I have described it, then the banks would make the rate on India as on China, but they do not make the rate on India; the rate is forced on them by the India Council, or, rather, it is a rate settled by such open competition that they cannot make a different rate of their own. A merchant can buy an India Council bill as well as a bank. Any person may buy it. To give an illustration, if I, an importer of produce from India, cannot get what I think is a fair rate in India for my produce bill from the bank, I can buy an India Council bill or telegraphic transfer here, wire it out, and pay for my produce with it.

3277. (*Mr. Birch.*) And the 14 millions of Council bills in England are very much used?—They are sold by the India Council and bought chiefly by the Eastern banks in the way I have described, and practically control the rates of exchange with India. Here is an illustration. Put yourself in the position of a merchant exporting a cargo of produce from India. He buys his cargo, say, in Calcutta, and draws against it in sterling on London. Well, if the banks wanted to "squeeze" him (that does not mean anything dishonest; it merely means getting a high rate), that intention would be very easily defeated. The mer-

chant would telegraph to London that he could not sell a bill except at such and such a price, and his correspondent in London could immediately apply to the India Council and buy from them a telegraphic transfer of rupees payable in Calcutta, with which he could pay for the produce, so that the India Council really control the rates of exchange with India.

3278. (*The Chairman.*) So that I understand there are two reasons why the trade of India is carried on under more favourable terms with this country than the trade of China. The first is the fact that there are import transactions in the Indian trade covering export transactions, and the second and wholly distinct reason is that there is such open competition for the sale of bills in the India trade that practically the merchant is able to get better terms?—That is so.

3279. Is it too strong a thing to say that the banks form a ring with regard to the China trade?—No. They do not "squeeze" the merchants; but in making the rate in buying bills on China, they make it what they think will leave themselves reasonably safe.

3280. As I understand the rate is nearly double in the China trade?—It is really more. I have understated it. By the rate I understand you to mean the cost in interest to the merchant for the use of the bank's money when he sells to the bank a bill on India drawn against a shipment of goods.

3281. If the banks make a fair profit on the India trade, why cannot they do the same on the China trade at the same rate?—Because they make the one certain at the time and the other is problematical; it is a speculation.

3282. And it is a speculation because they cannot "cover" the transaction?—That is it.

3283. So that the banks really do not charge more than the legitimate insurance for their transactions in the China market?—I do not think they do; the rates are always liable to variation. They cannot "cover" themselves as they may do with the India business. The transaction must therefore be open at their risk for an uncertain time, so they make "wide" rates of exchange, between what they will buy at in London and sell at in Shanghai at the same time. The Eastern banks do not "squeeze" merchants trading with China and Japan, the small profits in Eastern banking show this, but the fluctuations in exchange are rapid and severe, and they fix the outward rates so as to make themselves reasonably safe. They really have almost complete control over the outward rates to China and Japan.

3284. These two reasons that you have given us for the superior facility of carrying on the Indian trade really resolve themselves into the one reason that you can have "covered" transactions in the one case and not in the other?—Yes.

3285. And it does not turn on the India Council bills at all?—Yes, it does. It is because India Council bills can be bought at any time, and also because exports to and imports from India can be and are sold "forward" to a large extent.

3286. But if neither banks which are concerned with the Indian trade nor the banks concerned with the China trade make more than an average profit, the whole difference between the rates which they charge must be due to the additional risk of the one kind of transactions as against the other?—I have spoken of the small profits which Eastern banks have made. For the last 13 or 14 years there is no Eastern bank that has made large profits, except the Hong Kong and Shanghai Bank. I cannot say if the China and Japan business pays Eastern banks better than their India business, as separate statements are not given in the published accounts.

3287. (*Mr. Birch.*) You spoke of renewals, do not they charge you an extra rate for renewals?—There are no renewals possible with bills sold to Eastern banks against shipments. For shipments drawn against in this country an accepting bank or firm would charge $\frac{1}{2}$ per cent. or more for renewing an acceptance. The commission would depend on the

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position of the drawers, the nature of the business, and other circumstances.

3288. It is trading on the bank capital?—All foreign trade is done with bank capital to a large extent. The average merchant doing business with the East, I should say, trades nine tenths with the bank capital, but a manufacturer does not, because his capital is in his mill and machinery.

3289. (*The Chairman.*) You have explained to the Commission that, as insurance against risk, this very heavy charge is laid upon the merchant. Could you tell us in pounds, shillings, and pence what it amounts to?—I will give you an example:—

On the 16th November 1886 the rate of exchange, London on Shanghai, for 60 days' documentary bills was 4s. 5d., i.e., 100l. drawn against a shipment of merchandise at 60 days' sight, at 4s. 5d. per tael, would fall due in Shanghai in 105 days (passage 42, usance and grace 63), and the bank would then collect 100l. at 4s. 5d. = taels 452·83.

On the same day (16th November 1886) the bank rate in Shanghai for telegraphic transfers on London was 4s. 7½d. per tael. Assuming (for the purpose of this illustration) this rate remained the same for 105 days (the time it would take to receive and realise the merchandise in Shanghai), the consignees could then (if the goods had not been drawn against) with the taels 452·83 be able to buy a telegraphic transfer on London at 4s. 7½d. for 104l. 9s. 7½d.

In the above illustration the merchant (if he drew against his shipment) would have paid the bank 4l. 9s. 7½d. for the use of the 100l. for 105 days, which is at the rate of 15l. 5s. 9d. per cent. per annum. Not to confine the example to a single date, I take the two rates, viz., the bank's buying rate in London on Shanghai at 60 days' sight, and its selling rate in Shanghai for telegraphic transfers on the same day for the middle dates in each of the last four months.

1886.

16th Nov.—Buying rate in London, 4s. 5d.

Bank telegraphic transfer rate in Shanghai, 4s. 7½d. = 2½d. = 15l. 5s. 9d. per cent. per annum.

14th Dec.—Buying rate in London, 4s. 5¼d.

Bank telegraphic transfer rate in Shanghai, 4s. 7½d. = 2½d. = 15l. 5s. 9d. per cent. per annum.

1887.

18th Jan.—Buying rate in London, 4s. 5½d.

Bank telegraphic transfer rate in Shanghai, 4s. 8¼d. = 2¾d. = 16l. 17s. 11d. per cent. per annum.

15th Feb.—Buying rate in London, 4s. 4¾d.

Bank telegraphic transfer rate in Shanghai, 4s. 7½d. = 2¾d. = 16l. 17s. 11d. per cent. per annum.

I have assumed that the rate remained the same for 105 days after each transaction, and if it did so the rate of interest above stated would have been the exact price paid by the merchant for the use of the bank's money, being at the same time secured against any fall in exchange.

The differences are not always so much as shown above, viz., 2½d. and 2¾d., but the average for all last year was nearly 2d., and this for 105 days' use of, say, 4s. 5d. (average value of a tael), is about 12 per cent. per annum. A few of the bills on Shanghai are drawn at 90 days, and the banks buy these at ¼d. per tael less than 60 days' bills; this would be, say, 2¼d. difference for 135 days, or, say, 11½ per cent. per annum. The average cost to the exporting merchant of 60 and 90 days' drafts drawn in taels or dollars on China or Japan against shipments may be taken as more than 12 per cent. per annum, and he must either pay this to fix his exchange or take the risk himself.

I will hand in a table showing the average transactions during the last 13 months. The average will be found to be 1¾d. (*See Appendix XI.*)

3290. Why has the bank at the same time charged 13 per cent. for one transaction and 11 per cent. for another?—They buy a 90-day bill at ¼d. per tael less than a 60 days'.

3291. How is that?—That is a rule with them; they make ¼d. difference, which is about 6 per cent. per annum for the extra 30 days. I am informed very few of the bills are drawn at 90 days; the bulk of the business is done at 60 days.

3292. But if a merchant can get money at 11½ per cent. if he draws at 90 days, and has to pay 12 per cent. if he draws at 60, why does not he draw at 90?—There is this to be taken into account: a 60 days' bill will usually meet the time when the goods will be paid for in Shanghai, provided there is no unusual delay in clearing them. In many cases the buyer of the goods will have paid for the goods and taken them away in 60 days. If you had a 90 days' bill you would only be allowed rebate at the rate of 2 or 3 per cent. per annum for retiring the bill before maturity.

3293. So that you do not borrow at 90 days because you cannot use the additional 30 days?—That is it; occasionally it might suit to draw at 90 days, but 60 days would usually be sufficient.

3294. In spite of the fact that you get the last 30 days at much better terms than 60 days?—Yes. The banks make advances against shipments at 6 and 7 per cent. per annum, but in such cases the merchant runs the risk of the exchange which is taken at the rate current at the port of arrival in the East when the advance is paid off. The banks will buy your bill from you or advance the money in sterling. In the latter case they have no risk of exchange, and the advance is paid at Shanghai, or wherever it may be, at the rate of exchange of the day.

3295. Then I am to take it that the difference between 6 and 7 per cent. on the one hand and 12 per cent. on the other represents the charge for insurance which the bank has made to the merchant?—Yes, it marks their sense of the risk. To prevent misapprehension I may say that the foregoing deals solely with the cost to the merchant trading with China of trying to guard against a fall in exchange, and is not to be understood as describing the profits made by banks on those very transactions, as these vary in different banks according to the judgment of the managers. They use the money, after they get it, in different ways in different banks. With that I have nothing to do, it is with what it costs the merchant to avoid a loss by a fall in exchange by selling bills to the Eastern banks that I am dealing.

3296. Have you got any figures showing at what rate a similar transaction could be carried on with India?—The banks buying rate in London for 30 day drafts on India, and their selling rate in India for telegraphic transfers on London on the same day, usually differs ½d., making a cost to the merchant who sells them his draft on India of about 5 per cent. per annum. If the bank rate of interest in London is low, say 2 to 3 per cent., the difference in the Eastern banks buying rate and their selling rate in India for telegraphic transfers on London will then usually be only ¾d. With a high bank-rate of interest in London it may reach ¾d., which would be a cost to the merchant selling a bill in London on India at 30 days' sight of about 7½ per cent. per annum.

3297. Then am I right in saying that in this case 2 per cent. is what is charged by the bank for risk; in other words, the difference between 3 per cent. being the bank rate and 5 per cent. being the charge for the bill?—I should say not exactly that. An Eastern banker would not lend his money at 5 per cent., though sometimes it may cost the merchant no more by the rate at which he can sell his drafts.

3298. (*Mr. Courtney.*) The bank would charge beyond the bank rate in any case, risk or no risk?—

Yes. It has to be noticed that though it may cost the merchant only 5 per cent. the bank would not lend their money for 5 per cent. Eastern banks give 4, 4½, and 5 per cent. on their deposits, and they could not possibly do it, but when the merchant can sell his drafts on India to the banks at a difference of ½d. on the telegraphic rate in India it only costs him 5 per cent. per annum for the use of the bank's money; but if he took an advance in sterling money he would have to pay 6 or 7 per cent. or more to any Eastern bank.

3299. (*The Chairman.*) Will you explain the paradox, because it seems so at first sight?—Because an Eastern bank is an exchange office. It has no resemblance to an English bank whatever. Eastern banks lend their money chiefly in the East, and must advance it at least at 6 or 7 per cent. An Eastern bank is not a bank in the ordinary sense in which we know a bank in London.

3300. But, practically, for those 30 days the merchant does borrow money?—Yes. He sells them a bill which they collect, say, in Bombay. What they do is this: Having bought a bill from the merchant here, against that they in turn buy a produce bill in Bombay, and it is the difference between the two that is their profit.

3301. And, strictly speaking, the banks do not lend the money to the merchant?—Strictly speaking, they do not. It is an exchange, and not a loan transaction that takes place between them. The merchant of course gets the use of the money which the bank gives him for his bill. The bank may on the face of many transactions get only 5 per cent. But it turns its capital over many times every year, and it is the little it gets between every exchange transaction that makes up its profit.

3302. It is not the case of an English bank lending its deposits to a merchant?—No.

3303. (*Mr. Birch.*) The profit is out of the exchange?—Yes.

3304. It is the same banks that do business with China and Japan that do business with India?—Yes.

3305. The great merchants of India used to do this business which is now done by Indian banks. The profit was made on the exchange. That is what the Eastern banks make now, is not that so?—Not exactly. The buying and selling of drafts against the import and export business which these banks do now was not done at that time at all, there was nobody to do it. The business of India banks has grown up with themselves, they created it. They are simply dealers in exchange.

3306. (*The Chairman.*) Certain witnesses who have come before us have told us that the Indian trade suffered from the reasons incident to an unstable exchange, very much in the same way as China suffers. Can you give us any facts which would confirm that statement, or the reverse. Are you of opinion that the Indian merchant suffers much from the uncertainty of exchange?—Well I do not trade with India.

3307. He suffers much less than you do?—I should say so.

3308. But you do not know whether he does suffer at all?—Well I have got an opinion respecting the matter. I think that the business from this country to India has suffered, but, I think, in that from India back here India itself in some way is benefited.

3309. (*Mr. Chamberlain.*) I understood you, in the early part of your evidence, to say that in the case of India it was always possible for the Indian to "cover" himself?—So it is.

3310. And consequently that he was not subject to the disability and loss which affects China and Japan?—Not to anything like the same extent. I have not pronounced any opinion as to whether the Indian suffers or not in his export trade from India, but in order that you might understand how we suffer in China, I have shown you how the Indian can practically hire a bank's money at from 5 to 7½ per

cent. per annum, say 6 per cent., on an average; whereas I cannot hire it to cover myself from any Indian bank under 10 or 12, and I have known it 20.

3311. (*The Chairman.*) I quite understand that. All we wanted to know was whether you had any information to give us as to whether the Indian merchant suffered at all. It is obvious that he suffers much less owing to the fact that the bank can cover every transaction, but what we wanted to know was, whether there was not a margin uncovered in the trade which caused a loss to the merchant. Perhaps you have no specific information to give us?—I would be speaking too much at second-hand if I did so. There is one thing which I want still to mention about the exchange. I have said the banks will take the risk of exchange on terms which cost the merchant about 12 per cent. per annum, but unless the merchandise has been sold even these onerous terms leave him still open to the effect of a rise in exchange, that is a corresponding decline in the sale price of goods, which invariably takes place promptly in every part of the East, though a fall in exchange is never met to the full extent by a rise in the sale price, nor even partially, until a dearth of supply compels the dealers to raise their offers.

3312. But why is the price of goods more sensitive to a rise in exchange than to a fall in exchange?—Because if a merchant is trading, say, in Shanghai, and the exchange were to rise 1d., and he can sell grey shirtings of a certain quality at T 1.50, this T 1.50 is on account of the rise in exchange immediately worth 1½d. more to him; and if he was willing to sell at T 1.50, the old rate, he will be a more willing seller still at, say, 1½d. higher. But competition will prevent him continuing to ask T 1.50. He at once offers the buyer the goods at, say, T 1.48½. The Chinaman who buys has nothing to do with the sterling exchange, and if he were a buyer at T 1.50 he will certainly be so at anything under that price. That is how a rise in exchange operates so quickly in causing a decline in the market price of goods. On the other hand, if exchange fell, then the Chinaman would not raise his price to meet it until there is a dearth of goods in the place, and then he raises it, not because exchange went down, but because goods have become scarce, and he cannot get them unless he pays more money. The last severe decline in exchange took place between March and August last year, and there was no corresponding advance in the market price of imported goods to meet the fall in exchange. (*See Appendix XI.*)

3313. (*Mr. Birch.*) But supposing exchange has remained the same, and the cost price has gone down 2d., the effect would be the same?—Exactly the same effect follows in the foreign market, not perhaps so promptly but ultimately to the same extent. If the price goes up in Manchester the Chinaman will not give a corresponding advance until there is a scarcity of goods.

3314. Or the exchange comes down?—Or until something happens on account of which he is compelled to give a higher price.

3315. (*The Chairman.*) But the price of grey shirtings in Shanghai must always depend on the supply and demand?—Yes, but a demand for forward delivery can be supplied at any moment. If I were living there I could offer a man goods cheaper on account of a rise in exchange or a decline in the Manchester cost price. The goods might have to be shipped from Manchester. A large amount of the import business in India is done "forward." It is only a very small per-centage of the India business in Manchester goods that is not already settled before the goods are bought and shipped.

3316. (*Mr. Houldsworth.*) But if the demand does not warrant that you will have a slight trade later on?—Yes.

3317. (*The Chairman.*) Is there anything else you would like to lay before us in regard to the evils of uncertainty?—On account of the severe fluctuations in exchange the export merchant must have sold his

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goods and also settled his exchange to be free from what may be hazardous speculation. Even then his risks do not end. With each transaction he has three contracts open, one with the manufacturer, one with the bank, and one with the buyer in a foreign country; and if the first fail to deliver at the time specified (and this may arise in many ways beyond his control), the merchant is liable for an exchange claim to the bank, and probably also to the buyer, neither of which claims could have arisen before the relative values of silver and gold became so much disturbed. A great number of exchange claims are open at the present moment. I know one seller of goods in Manchester who has three exchange claims just now for between 400*l.* and 500*l.*

3313. Due to the fact that the exchange has altered or to delay by the failure of the manufacturer to fulfil his part of the bargain?—Yes, to both; and in two out of the three cases the failure of the manufacturer was from breakdown of machinery. He could not help that. Delays may arise from many causes beyond his control. I know I am liable to the buyer in China for the goods, and to the bank if I have sold them a draft forward, but I cannot compel delivery from a manufacturer in Manchester. The custom is, if I like to wait I will get them after, say, a strike is over without any extra price, or I may cancel them if I please, but I cannot do anything more than that. I have never yet said anything about liability to any bank here. If I were to sell bills to be drawn against goods to a bank here, and be unable to get delivery of them on account of a strike, I do not know that the bank would allow a strike clause to relieve me from liability, because they in turn would have “covered” the business, and would lose their profit on the bills if I did not deliver them.

3319. They will charge you for the delay, and besides that for the fall of price during the delay?—Their claim would be that which they had lost, which their claim would show. These things have all risen up and hampered and harassed our trade with China and Japan, in consequence of the fluctuations in silver, and since the fall in silver.

3320. Have you any facts to bring before us which would indicate that the fluctuations of exchange had injuriously affected the Lancashire manufacturer?—I can give you one case in connexion with the yarn trade. At one time all the cotton yarn sold in China and Japan was exported from the United Kingdom, but now almost the whole of the coarse counts, 16/24's, consumed in those countries are shipped from Bombay. The export from the United Kingdom is now nearly confined to 28's/32's and finer counts, which, to the present time, are not manufactured in Bombay.

The first 50 bales of cotton yarn were shipped from Bombay to Hong Kong in 1866, but the growth of the trade was not very rapid, and it had only increased to about 3,000 bales per annum in 1874. At this time the great fall in silver commenced, and other conditions then came into play which benefited the Bombay mills and damaged those in the United Kingdom. And these conditions have since then operated in the following way.

The capital of the Bombay mills is in rupees. The wages are paid and the cotton and everything used in the mills is also paid for in silver, except a small part of the stores and the coals; these, being imported, are bought on a gold basis, *i.e.*, as silver falls or rises in value compared to gold these articles cost the Bombay mills so much more or less; but, except for these, all the outlay of the Bombay mills is in silver.

China and Japan, like India, have a silver currency, and the freight and insurance on goods from India to China and Japan is paid in silver. All goods are sold in China and Japan for silver, and the following table shows the rate of exchange from 1873 to 1886 for bank drafts drawn in Shanghai on Bombay, by which the proceeds of yarn shipments would be returned to Bombay.

DEMAND RATES of EXCHANGE in Shanghai on Bombay
per 100 Taels.

Year.			Rupees.
1873	-	-	306½
1874	-	-	306
1875	-	-	306½
1876	-	-	315
1877	-	-	307¾
1878	-	-	309
1879	-	-	305½
1880	-	-	307½
1881	-	-	307¾
1882	-	-	307
1883	-	-	308
1884	-	-	307
1885	-	-	306
1886	-	-	309

It will be observed the rates of exchange during these 14 years were very light. The high average of 1876 was caused by a monetary panic in Shanghai, and this for the time being favoured the sellers of yarn imported from India.

I have already explained that the entire outlay of the Bombay spinner is in silver (except for coals and a few stores); that he sells his yarn and receives the proceeds also in silver; and that, therefore, no variation of the relative values of gold and silver affect him, except on coals and a few stores. The advantages to him are, therefore, that the trade is free from any speculative element (except the market price), as he knows what the sale of his yarn in taels (or dollars, as the case may be) in China or Japan will give him in rupees in Bombay. Much of the yarn is sold in China and Japan for delivery at forward dates, and he can make such bargains without fear of exchange fluctuations, as he can reckon on his out-turn in rupees within a fractional per-centage. Under these favouring conditions the export of cotton yarn to China and Japan has increased as follows:—

	Bales.
1874 -	3,000
1875 -	9,000
1876 -	17,000
1877 -	28,000
1878 -	47,000
1879 -	50,000
1880 -	67,000
1881 -	69,000
1882 -	91,000
1883 -	112,000
1884 -	141,000
1885 -	173,000
1886 -	220,000

It has gone from 9,000 in 1875 to 220,000 bales in these 12 years. During the 14 years under review the position of the Lancashire spinner has been as follows: So far as he spins from cotton not of Indian origin his business from the start is on a gold basis in every respect; but if he spin India cotton, and most of the common counts, say 16/24's, exported to China and Japan are spun from India cotton, he begins his operations by buying cotton on a silver basis, *i.e.*, if silver fall relative to gold he will get more cotton for each sovereign, but having bought his cotton this is at once put on a gold basis by being drawn for from India on London in sterling, and afterwards the business is entirely on a gold basis, the freight and insurance to China and Japan being paid in sterling.

The spinner himself may not be the actual buyer of the cotton in Bombay, but it is bought and paid for by the actual importer in the way I have described. The moment it is shipped from Bombay it is put on a sterling basis.

The yarn is sold in China for silver (in taels or dollars) and the proceeds returned in a draft drawn in sterling on London. The following table shows the average rate of exchange for 14 years:—

DEMAND RATES OF EXCHANGE in Shanghai on
London per Tael.

	s.	d.
1873 - - -	5	9
1874 - - -	5	8 $\frac{3}{4}$
1875 - - -	5	7
1876 - - -	5	4 $\frac{1}{4}$
1877 - - -	5	5 $\frac{3}{4}$
1878 - - -	5	2 $\frac{3}{4}$
1879 - - -	5	0 $\frac{1}{4}$
1880 - - -	5	1 $\frac{3}{4}$
1881 - - -	5	1
1882 - - -	5	1 $\frac{1}{2}$
1883 - - -	5	0 $\frac{1}{4}$
1884 - - -	4	9 $\frac{1}{4}$
1885 - - -	4	7
1886 - - -	4	6

The foregoing table shows an almost uninterrupted decline in the exchange during the 14 years, until, in 1886, there was a fall of 21 $\frac{3}{4}$ per cent. on the rate in 1874, and this decline has, during all this time, adversely affected the Lancashire spinner in three ways:

- As exchange fell in the East the price in China for English yarn could not be raised to meet the fall, as the fall did not affect the Bombay spinner, and he, therefore, accepted the same price:
- The exporter of Lancashire yarn could not sell for forward delivery, as he was unable to estimate how much the sale price would produce to him in sterling:
- His inability to estimate the sterling out-turn of his shipments caused him, instead of awaiting the receipt of his proceeds from the East, to sell drafts to the banks in London against his shipments; but though this relieved him of the risk of a fall in exchange, he did so on the terms of paying the Eastern banks what was to him an excessive price for the use of their money, and was, in this way, still handicapped against the Bombay spinner.

Then I have a table showing the number of bales of yarn exported from the United Kingdom to China and Japan.

	Bales.
1875 - - -	75,445
1876 - - -	74,843
1877 - - -	84,400
1878 - - -	89,670
1879 - - -	95,656
1880 - - -	109,877
1881 - - -	116,555
1882 - - -	84,579
1883 - - -	83,819
1884 - - -	95,341
1885 - - -	80,639
1886 - - -	64,553

In 1875 the export was 75,000 bales. It rose to 116,000 in 1881, and fell in 1886 to 64,000, so that last year is the lowest of any of the 12 years. It will be observed the trade was a growing one down to 1881, even though exchange had fallen a great deal in the meantime; but this growth was chiefly in 28/32 and other yarns, which Bombay cannot spin; but from 1882 to 1886 the trade has been a declining one, and last year marks the smallest shipments over the 12 years shown in the table.

3321. Has the decline since 1882 been in yarns which Bombay cannot spin?—Yes, the yarns which Bombay cannot spin have declined also. I will explain how that is. Bombay spins up to 24's easily, but they also spin 26's, and the natives can get a 26 Bombay cheaper than an English 28, so they come down a count or two, and so get a yarn which I suppose suits their purpose.

3322. They have produced something which is taken in lieu of it?—Yes, they have made something which is taken in lieu of it. The trade has not only

declined, but for years past has been unprofitable, and a great many of the shipments which have been made over the past seven years have been in the hope that the superior quality, and the known marks of the Lancashire yarn would recover their position. Another reason for continuing the shipments was that certain mills in Lancashire could make nothing else, but within the last few years I am informed that nearly 20 mills have either stopped altogether, or have had their machinery altered in order to spin other counts. The loss to Lancashire on this account has been very great.

3323. You anticipate the decline which has been going on since 1881 will continue?—Yes, the export is now nearly stopped from Lancashire of 16/24's. I have not myself sent a bale for six or seven years.

3324. I suppose you would admit that that is largely due to the fact that Bombay had natural advantages in spinning the coarser yarns over Lancashire, but in addition to that you find, as I understand it, the chief cause arises from this 10 to 12 per cent. which the Eastern banks charge for assisting the merchant to carry on his business?—Yes, it is the uncertainty of the exchange which is the chief difficulty. The Bombay spinner and the Chinaman are on the same level in this respect, as they have both a silver currency.

3325. It appears that there are two entirely distinct reasons why the Indian merchant benefits as compared with the English merchant?—Till 1874 the Indian mills might be said to have created the trade they had by the natural advantages they possessed in being where the cotton was grown. They could make 16/24's, but their whole export trade to China and Japan at that time, from 1866 to 1874, had only amounted to 3,000 bales; but from 1875 to 1886 those 3,000 bales, now that silver troubles have come in, have become 220,000 bales.

3326. Yes, I quite appreciate the magnitude of the fact; what I was rather anxious to get at is your view of the causes?—I think it is not possible to distinguish between the differences in exchange and the uncertainty of it in that way.

3327. As exchange fell in the East the price in China for English yarn could not be raised to meet the fall, as the fall did not affect the Bombay spinner, and he, therefore, accepted the same price. Now let us suppose that the exchange, instead of falling, had risen in China, then, I presume, the Bombay merchant would not have been benefited?—No.

3328. So you see there is a distinction between the uncertainty whether the exchange rises or falls, and that other cause which is due to the fall in the exchange?—Well, if a fall or a rise took place during the currency of the transaction, of course those connected with the transaction, either in Lancashire or Bombay, would be affected, but if silver were to be steady at the present price for 10 years I could not say what would happen. I cannot say more exactly than by giving statistics how much of the Bombay export of yarns to China and Japan is to be ascribed to natural advantages, and how much to the fall in silver and subsequent exchange fluctuations.

3329. I do not wish to press you unduly on the point, but let us suppose that exchange had been very uncertain during these 10 years, so that nobody could foresee in the course of six months what the exchange would be, then I understand the Eastern exchange banks would not charge 10 or 12 per cent. for their money?—Yes, they would.

3330. And the merchant would not suffer?—He would suffer.

3331. But if the uncertainty had been on the whole due to a tendency to a rise in the exchange, though the Bombay merchant suffered a loss of 10 per cent. the English manufacturer would have gained?—A rise in exchange would favour us. If I expected a rise in exchange now I might ship heavily, and I would sell the goods forward as quickly as I could, and not settle my exchange, so that I would get all

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the advantage I possibly could if the rise came about as I hoped.

3332. Of course if the prices of everything, including labour, in England fell exactly as the exchange fell, there would be no loss to the manufacturer, if he could alter at the same time the interest on permanent debt and wages of his workmen?—Every transaction would then be on the same level.

3333. But it would be the same thing to the English merchant?—To the English manufacturer. Yes, if he gets everything at so much less to meet the lessened price, it would be precisely the same.

3334. Then you think the cause of his loss is, that the wages and interest on permanent debt have not altered as prices have fallen?—They have not altered; Lancashire workers earn as much in every part of Lancashire as they ever did at any time, and in some parts they earn more than they ever did before, even where the manufacturers are not doing so well.

3335. You have no other general observations to make to us?—There is another trade in coarse cotton cloth, which Manchester formerly did with China, and all I have said with reference to yarn applies to it. I have extracted a small table to show how the Bombay people have increased their exports of such cloths to China. (See answer to Question 3453.)

3336. (*Mr. Birch.*) I think you said that the Indian banks make no profits or little profits, whereas the China and Japan banks do good business?—It is the same banks that do the business with all these countries.

3337. I mean the portion that is done in China and Japan is advantageous. I understood you to say that relatively they do a much better business with China and Japan than they do with India?—It is a more speculative business. The profits may be more or less. Separate accounts are not published by the banks, so I am unable to say whether their India or their China business is most profitable.

3338. That is to say, the business which is favourable to them is, to a certain degree, speculative, and might result in a loss in the merchant's annual profits?—No, I expressly guarded myself against giving any opinion as to what profits the banks made out of this business. What I have said deals solely with what trying to guard against exchange fluctuations cost the merchant trading with China, and is not to be understood as describing the profits made by the banks on those very transactions as these vary in different banks according to the judgment and consequent action of the managers.

3339. The inference was that the whole banking business is a speculation in the exchange?—In China it is; and that is why the banks make such wide rates.

3340. Does it appear to you that the financing system of the banks has its disadvantages, inasmuch as they have to a certain extent over stimulated trade?—I do not think so. I have often heard the bad trade of the East ascribed to the banking facilities; but I do not take that view of it at all. I have heard persons inveighing against banks for advancing. In my opinion, if a bank is doing business with the East, and any person comes to them with proper security, it is not their business to inquire into whether his investment will pay him a profit or not, it is enough for the manager if he sees in the proposed business a profit for the bank with security.

3341. You have no experience, I suppose, of dealing with countries where there is a forced paper currency, such as Russia, Chili, or Peru?—No, none.

3342. Because there, you see, the variations are much greater in exchange than they are even with Japan and China. A forced paper currency has very much greater fluctuations than we have seen between the silver and gold?—Yes; but my impression is from what I have heard that the business is not conducted with those countries on anything like such close terms as it is with India. Another thing is that the export business of Chili has been over a long

period, I should say, except with short intervals of prosperity, a very unfortunate business for exporters from this country. I speak generally; I have no special knowledge of it.

3343. The increased competition on the part of the Bombay manufacturers would appear to be rather a natural result of manufactories starting where the raw material is on the spot?—That was the original reason of the Bombay mills being started.

3344. And then when they had once started they would go on naturally producing?—They did, but they had very bad times. Their good times have come since 1875.

3345. But they have increased largely since 1875, have they not?—Yes, they are building mills in Bombay now. This fall in silver has been to a certain extent a bonus to them.

3346. (*Mr. Chamberlain.*) You say that at the present time you have to pay about 10 to 12 per cent. for the use of the money of the Eastern banks?—Yes.

3347. And with the exception of the Hong Kong and Shanghai Bank none of these banks, as far as you are aware, make much profit?—No, they do not.

3348. And even the Hong Kong and Shanghai Bank has had serious losses lately?—Yes, quite lately. That was by advancing against sugar in Manilla. I should say from the indiscretion of the manager on the spot, but on the whole it has been a very successful bank.

3349. But does not the fact that these banks make small profits, although they charge large interest, show that there is a good deal of risk in their transactions?—Yes.

3350. And is not the very heavy charge for interest due to the existence of this risk?—It is.

3351. Quite as much as to the question of exchange or fall in silver?—It is the exchange which is the risk, and if there had been no fall in silver there would have been no question of exchange. The risk is greatest in buying bills on China. For India they do not charge high rates. The bank business with India is competed for so closely, transactions are so easily covered, and, besides this, the Indian Council by their large sales of bills so control the exchanges that they cannot get squeeze rates, but with China they run greater risks. Every bill they buy in London on China is, so to speak, a speculation, and they make a high rate for it. In the China and Japan trades the banks practically make the rates.

3352. Yes, and they must lose money with many of their customers, or else their profits would be in proportion to the rate of interest which they charge?—At the first glance that would appear to be so, but some explanation is here necessary. Every decline in silver since 1873 has caused the banks severe loss. Their capital is in sterling and also their chief deposits. These were sent to the East when exchange was high and stand in the banks' books at nearly 2s. per rupee. But since the decline in silver they have written down this value, which has cost them several hundred thousand pounds, and much of their profits have gone in doing this. If during the 14 years the rate of exchange had been steady then the profits made by the banks in buying bills on China, on the terms shown above, would have been very large, but the tendency has been during all that time to lower rates until the average rate of 1886 was $21\frac{3}{4}$ per cent. below the average rate of 1873. In buying a draft in London on the East the banks were, in fact, buying so much silver, and, as in the case of China, they did not collect that silver until from $3\frac{1}{2}$ to $4\frac{1}{2}$ months after they had paid for it in sterling. They held this silver for at least part of that time until they got "cover," and in estimating the profits they earned allowance must be made for the fact that they were holding an article which over a period had a lessening value. The Hong Kong and Shanghai Bank's capital is in silver, because it is a local bank out there, and its profits have been chiefly derived from local business.

3353. Then, is not this the case, that if these banks made no bad debts, they would either make large profits or be able to charge less than 10 or 12 per cent. for the money?—I do not think they would take the exchange risks to China for less than 10 or 12 per cent., but of course they would have more profits than they have if they did not make any bad debts.

3354. Then as a result of these heavy charges for the use of money, you say that the Lancashire trade has suffered?—Our trade with China has suffered.

3355. I am speaking entirely of China and Japan?—It makes it a speculative gambling business in fact.

3356. And as a result of that, no yarns from 16's to 24's are sent to China and Japan?—None at all.

3357. And the remaining trade in 28's and 32's is seriously straitened?—Seriously crippled.

3358. And all that trade has gone to Bombay?—All that trade has gone to Bombay.

3359. So that every bale of cotton sold less from Lancashire means a bale of cotton more sold from Bombay?—It means more than that. Our trade has not only become less, it went up to 116,000 bales a year, and it would have gone on expanding.

3360. But whatever you have lost, whether of the old trade, or of trade which you might have got, has gone to Bombay?—A large part of what Bombay spins now would have been spun in Lancashire.

3361. This enormous advantage to Bombay is the result of the fall in silver?—I believe so.

3362. And that fall of silver is due either to an over supply of silver or to a short supply of gold?—Yes.

3363. That is to say, it is due to a natural cause?—Yes; but I must mention that that natural cause was prevented operating down to 1873.

3364. Now I ask you, do you think it fair that the legislature here should interpose an artificial obstacle to the advantage which is now gained by one part of the empire at the expense of the other, owing to natural causes?—I must answer your question as applying to the whole world. I believe it would be infinitely better to-day if silver and gold were tied together again as they were before 1873.

3365. This Commission have to consider whether legislation should take place in order to restore the old relations between silver and gold. The legislature which would have to give effect to our recommendations is a legislature in which India is not represented. I ask you whether you think it would be fair that we should propose legislation which would injure India, although it benefits Lancashire, when the object of the legislation, according to your own admission, is to interpose an artificial obstacle in order to do away with a natural advantage?—The advantages of returning to a fixed standard would be infinitely greater than the disadvantages. If I pass a certain law it may be a hardship in a particular case, but a benefit in 50 other cases, and I am asked about the particular case, not about the 50 other ones.

3366. (*Mr. Courtney.*) Supposing you admit that owing to the operation of a natural law one portion of the United Kingdom, which is a manufacturing portion, gets a great benefit, at the expense of another portion, which is a corn-producing portion, would it be fair for the legislature of the United Kingdom to interfere to prevent that one portion from obtaining the advantage, because it involves some disadvantage to the other?—Well, I can only answer, that I believe it would be infinitely better that silver and gold were again tied together.

3367. (*Sir T. Farrer.*) You have given us evidence of one particular evil, an evil to Lancashire, which is also at the same time a benefit to Bombay; now suppose the question rested alone upon the evidence which you had given us to-day, would you think it right that we should make the general alteration that Mr. Chamberlain has suggested.

3368. Do you think that the evils that you have told us of to-day are sufficient to justify a complete alteration in our currency laws?—These and other

evils might be sufficient to justify us. I am not aware anyone has suggested making any change in our own currency laws.

3369. (*Mr. Cohen.*) You spoke of the Eastern banks charging 12 or 13 per cent.?—Yes.

3370. Surely if that rate were incommensurate with the business which is subjected to that rate it would cure itself by other banks starting as we find in every other business. Are we not entitled to assume that the rate, onerous as it is, is not beyond what the nature of the business calls for?—I quite agree with you, I do not think it is.

3371. Can you state to the Commission how long it is since an Indian bank was established?—There has been no India or China bank started for many years.

3372. That would rather indicate that the banks were not doing extravagantly well notwithstanding these high rates of interest?—Eastern banking has not been a profitable business compared with Colonial banking for a long time past, on account of the decline in and fluctuations of silver.

3373. If notwithstanding these high rates of interest the business has not been so profitable as to induce new banks to start, do you attribute that to the circumstance of the difference of currency creating difficulties which can only be met by these onerous charges?—I do.

3374. And there is no other remedy for these onerous charges but a change in the system of currency rather than a multiplication of banks. Is that so?—Yes.

3375. I suppose we may take it as a fact that if a merchant exports goods and imports against them the question does not enter as a factor into the case at all?—Oh, yes, it would.

3376. It would if no money passed at all?—He would have to collect the silver for his goods in China in order to buy tea with it, and he might not then be able to buy tea or anything else with the money.

3377. There would be no export of money at all, how would exchange enter into it?—The view that exchange could not enter into the question would sometimes be true if the merchant could on the day he sells his imports buy exports with the money, but in China this would at any time be difficult and for most of the year impossible. He would usually have to wait weeks and might have to wait months before he got his cash, and he could not buy tea or silk "forward," he could only do so when it came into the market and could be seen and sampled. Assume he sells his goods on the 1st of January; he afterwards delivers them, and gets his money some time in February; he may then want to buy tea with that money, but the tea season does not begin for three months afterwards, and if even it were during the season it meantime may have risen or fallen affected by the rate of exchange in sterling. Because as exchange rises they pay a lower price for tea, and as exchange falls they can afford to pay a higher price, and this is true of all exports from China and India likewise, because it is to the laid down cost in sterling on this side that the exporter of eastern produce looks.

3378. You were pressed by Mr. Chamberlain, and one or two other members of the Commission, as to whether it would be fair for the Government of Great Britain to interfere for the disadvantage of Bombay as against other parts of the country, assuming that you have established an advantage to Bombay, but is it not necessary in answering such a question as that to consider the elements of that advantage before you can give an answer as to whether it would be fair to interfere with them?—Yes. On this subject some apparently simple questions would require an essay to answer them.

3379. I understood you to say that natural causes were the factor in producing that advantage?—That is to say, the over-supply of silver.

3380. But let us take, for example, the land settlement of India, which was fixed in advance when the

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rate was a high one and has not been altered. That would be an element which you would not call a natural state of things. That is an unnatural state of things, is it not?—When you allude to rent, that was the rent of agricultural land in India. It would not affect a mill to any extent at all, the ground rent would be so very small.

3381. Does not that affect the rate of wages throughout the country, the rent which the Government exact for their land?—It may have some effect upon it. I have never heard such a thing stated.

3382. You consider the advantage which the Bombay manufacturer now possesses exclusively due to natural causes?—I consider the advantage which the Bombay spinner now possesses is, to a large extent, due to the fall in the value of silver relatively to gold.

3383. Then is the fall of silver a natural or a fictitious cause?—It is to some extent a natural cause, but there are now always several temporary reasons affecting the value of the metal itself. At present there is apparently not more than enough silver, as the continental people are buying, which maintains the price, yet nobody will buy exchange forward as they are frightened. Do you call that a natural or an artificial cause? Until 1873 silver was kept steady by the operation of law, but one cannot say that the removing of a law is a natural cause. That law in the first place interfered with some natural cause.

3384. Supposing that the fall in silver was owing to the action of continental Governments, would not that be a case which, in your opinion, might be met by legislative action on the part of our Government?—I do not think that any legislative action that we could take against them would have much effect on the value of silver except in conjunction with other Governments.

3385. (*Mr. Courtney.*) Supposing I were in Melbourne and went into a bank there with 1,000*l.* and asked for a telegraph transfer on London; I should have to pay something to the bank for giving me that facility, should I not?—You might or you might not; it would depend on the rate of exchange between the two places for the time being. If they did not want to remit having idle money in London they might even pay you something for giving it, but if they wanted to remit money they would charge you something for giving it to you.

3386. But what regulates the rate of exchange under normal circumstances?—The payments which the one place has to make to the other.

3387. The cost of transferring specie is the regulating cause of the rate of exchange?—Yes.

3388. In the element of the cost of transferring specie does the time occur which would be occupied in transferring it from the one place to the other?—Yes.

3389. Then the interest for the time occupied by transferring is an element in the rate of exchange?—It is.

3390. In the instance which you have given us, you suppose goods realised at Shanghai and a telegraphic transfer obtained on London replacing the original money, do you not?—Yes.

3391. And you make out that 12 per cent. is charged against the 105 days that would be occupied in the time between the original advance and the date of the telegraphic transfer?—Yes.

3392. Should you not, according to what you have already admitted, have taken into account as part of the rate of exchange of that telegraphic transfer the time which it would have taken to send money home?—I have not done so, because I have taken the telegraphic transfer rate.

3393. You have admitted that the telegraphic transfer rate involves, as a regulating cause of that rate, the time it takes to send money from the one place to the other?—I have not admitted it because a telegraphic transfer takes no time. I could work it out with absolute accuracy, and show that the merchant who drew on Shanghai, assuming the rate had

not changed between the drawing date in London and repaying date in Shanghai, would have paid the bank 4*l.* 9*s.* 7½*d.* for the 105 days' use of their money.

3394. Supposing, in order to avoid the question of silver, I take the case of a gold-using country, Melbourne. If I go into a bank in Melbourne with gold money, and ask for a telegraphic transfer in London in gold, there is a certain rate of exchange charged, a certain price charged, and under normal circumstances the governing cause of that charge is the time which will be occupied in sending money from Melbourne to London?—No, there would not be, because you pay your money into the Melbourne office to-day, and the office of the same bank pays out the money to-day in London, and the money begins to earn interest in one place when it ceases to earn it in the other.

3395. (*The Chairman.*) You admit this, that the actual quotation of exchange between London and Melbourne need not necessarily be at par. If it differs from par, it differs because of the competition for bills either in London or Melbourne, that the rate of variation from par cannot exceed the cost of transporting the precious metals from Melbourne to London?—Yes; that is quite right.

3396. But, as matter of fact, you would also go on to say, would you not, that the bank cannot charge interest on a telegraphic transfer for the whole time that would elapse, supposing money had to pass from Melbourne to London; the bank cannot charge interest for that period?—With telegraphic transfers the price will largely depend on the competition between banks created by their respective positions; and you may eliminate some things which would affect the rate for drafts drawn at a certain usance. The bank in Melbourne which has idle money in London will be delighted to sell you a telegraphic transfer without charge, they might be even willing to pay you a larger sum in London than you handed them in Melbourne.

3397. (*Mr. Courtney.*) And in that case the person who wants to send home money is saved the cost of sending it, and is saved the interest during the time it is being sent?—Yes.

3398. Do you deny that the interest is an element which he takes into consideration in the bargain?—The man who is buying telegraphic transfers does not go into these calculations at all; if he were buying a demand bill he would, because he would then pay no more to a Melbourne bank for a draft for, say, 100*l.* in London than that amount in gold plus freight and insurance to London, with a trifle additional for the convenience of the bill.

3399. And a man buying anything does not go into all the causes that regulate the cost of that article that he buys. If you look at the matter as an economist all elements of cost combine together in bringing about a particular price. The question I wished an opinion upon was, whether in the payment made for a telegraphic transfer, an element in consideration, is not the time that would be occupied in sending home the money, if the money had to be sent home?—I do not calculate that at all. I would not know if the banker had to send the money home.

3400. But you will observe, if my opinion which I have indicated is true, instead of taking in 105 days you ought to take in 170 days, and your 12 per cent. that you say the bank makes is reduced to seven or eight?—Why should I take 170 days? From the day I receive the bank's money in London against a 60 day bill on Shanghai, until that money has been remitted by a telegraphic transfer, and is again with the bank in London, only 105 days have elapsed.

3401. I should say you ought to take into account not only the time occupied in the bill drawn out, but some consideration for the time that would have been occupied in sending the money home. Supposing instead of the man going in and getting a telegraphic transfer he asks for a bill at the usual date?—Four months on demand.

3402-3. Would he pay the same for the one as the other?—No, he would not.

3404. Was that four months originally fixed as about the time that it would take to send home something that would realise the money?—Originally it may have been so. The difference in Shanghai would be about 1*l.* a tael between the telegraphic transfer and the four months' rate, say, about 2 per cent. I should like to say there are few things so puzzling as Eastern exchanges to those who are unfamiliar with them. For example, if the bank rate in London were to rise to 7 per cent. the telegraphic rate would fall in Shanghai, although the four months' bank rate might not change at all, and if the bank rate in London fell to 2 per cent. the telegraphic rate in Shanghai would advance, although in the meantime there was no change in the four months' rate. Telegraphic transfers are affected by circumstances which may not, or only partially, influence the dates for drafts drawn at demand, or at some months afterwards.

3405. (*Mr. Barbour.*) The exchange banks in the East, I fancy, frequently have their capital in gold, have they not?—Yes.

3406. The capital of the company is in gold. Many of the exchange banks have been started on a gold basis?—The Eastern banks, with their head offices in London, originally raised their capital in this country in gold.

3407. And they have had a portion of that capital in the East?—Yes, the most of it, and also the most of their deposits, which are also in gold.

3408. And I suppose they have been losing on that portion of their capital in silver in the East?—Oh, yes, very largely.

3409. (*Sir T. Farrer.*) Is there any export of yarns from Lancashire to Java?—Yes.

3410. Do you know how that is going on?—I do not think it has been a very profitable trade with Java for some time, but still there is a good deal of it done.

3411. Is it going on better or worse than the trade with China and Japan?—It is a much smaller trade. It is not one twentieth part the size of the China trade. With that country there are no disadvantages of exchange at all. The trade is only affected by market demand.

3412. I want to know, for that reason, whether it has suffered less than the trade with China and Japan?—The trade with Java has suffered from a special cause, the decline in the value of sugars, the same as the trade with Manilla.

3413. Is there any competition from Bombay to Java?—None that I know of. I do not think there is any yarn sent from Bombay to Java, none to speak of, because the Java yarn which they buy is all 40's.

3414. They buy the higher counts?—Yes.

3415. Then the yarns that are sent to China and Japan, are they all made out of cotton that comes from India?—No, the 16's/24's that used to be shipped from Lancashire to China and Japan were, I might say, all made out of India grown cotton, but the 28's and 32's that we sent there were chiefly made out of American cotton, but still some were made out of India cotton; when you rise above 28's/32's there is no Indian cotton used at all.

3416. And those which go from Lancashire to China and Japan now are chiefly made with American cotton, are they?—The yarn that goes from Lancashire to China and Japan is chiefly made with American cotton, very little Indian cotton.

3417. So that in the case of the yarn that goes from Bombay to China and Japan, the Bombay manufacturer has the benefit of the material on the spot?—He has that benefit.

3418. Whereas if the Lancashire manufacturer were able to compete with him in that he would be obliged to overcome the difficulty of sending the yarn from India to Lancashire, and from Lancashire back to China?—Yes.

3419. Do you know what proportion of the ultimate price of the article is represented by the cost of transport of cotton from India to England and back to China?—The transportation charges from

India to Lancashire on the cotton to make a bale of yarn (weighing 400 lbs. net), and like charges on the bale when manufactured, from Lancashire to Shanghai, may be taken as nearly 30*s.* A bale of English yarn costing, say, 13*l.* on arrival at Shanghai, will include cotton costing about 8*l.* and 5*l.*, made up of manufacturing and transportation charges.

3420. (*Sir T. Farrer.*) There has been, as you say, a very great development of these mills in India lately, and I gather from some of the reports that they have been having a bad time in India these last two years?—I am not aware.

3421. You will find in one of the reports recently published that very few of the mills have been dividing more than 1 and 1½ per cent. dividend?—I did not hear about the 1½ per cent., but I have heard complaints and statements made of the extravagant way in which the mills have been worked. There is a firm in Manchester connected with Bombay mills, and two days ago a gentleman connected with them was in my office in Manchester, and he told me of one mill that had paid 10 per cent. since 1879. I do not speak of that as being general, but he told me that he was interested in some mills that had paid 10 per cent. since 1879.

3422. You do not assert that that is general?—No, I cannot speak with any degree of authority whatever with reference to anything relating to the financial position of the Bombay mills or what dividends they pay.

3423. Have you formed any opinion as to whether this difference in exchange arises from what people ordinarily call, whether correctly or not, appreciation of gold, or from depreciation of silver?—Well it would be more accurate to say that gold has appreciated, because, although it is true that silver has fallen relatively to gold, it has not fallen relatively to everything else.

3424. And gold has risen relatively to everything else?—All the world over, to everything else.

3425. Then supposing a man sends cotton from Lancashire to the East, and that when he gets back his price he receives a smaller quantity of gold than it was worth at the time that he sent it, but that gold is worth more, is it not?—That depends upon what he is going to do with it.

3426. But you told me just now that gold had risen against everything?—Well, that gold is worth more, but what he has to apply that gold to may be the same; he may have to pay wages and rent and various other things with it which have not meanwhile changed in amount.

3427. He may have to apply it to things in England which have not depreciated in comparison with gold, but taking things generally and the value of gold generally, the gold which he receives though smaller in quantity, is worth more than the same quantity of gold would have been at the time when he sent his cotton out?—Yes, it would be so far as he was not tied by what I might call fixed charges.

3428. Then if he goes on paying wages and wages have not fallen he will not have wherewithal to pay his workmen to the same extent as he would have if gold had remained at its former value?—Yes. You were asking about the appreciation of gold just now. It is sometimes said that it is not on account of the appreciation of gold that the prices of articles in general have fallen, but on account of the increased production of articles. I was going to mention cotton. It is 35 per cent. cheaper than it was some years ago, and meantime the quantity produced has not increased except to a small extent.

3429. (*Mr. Fremantle.*) How would you summarise the effects of the present state of things as regards the price of silver and the Eastern trade upon the Manchester trade?—I should say that Lancashire had suffered enormously through it.

3430. But have all classes suffered, or any classes specially?—Special classes have suffered most. I think all classes have been more or less affected.

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3431. Have there been many failures in Lancashire?—A great many.

3432. Have those been of merchants or of spinners?—Well, chiefly of manufacturers. I was going to mention that you must distinguish between manufacturers and spinners. The number of failures of manufacturers in recent years in Lancashire has been very great, and many estimates have appeared in the newspapers in Lancashire, and I have had estimates given to me by friends which point to this fact, that the capital of the cotton manufacturing business in Manchester has not paid 5 per cent. for 12 years past, but I am incapable of pronouncing any opinion on that myself. I am not a manufacturer. I have no interest whatever in these mills or in any mill, or in any manufacturing business whatever in Lancashire. There is one indication of this in the market price in Manchester of the shares in the co-operative mills. In Oldham there are 100 mills, the shares of which are dealt with in the market, and I think that very few of these shares are at a premium, and in such cases the premium is very small. They are almost all at a discount, and the discounts in some cases are enormous. If you like I could get a public report from Oldham showing the paid up values and present market price of the shares and send it to you. You would see in the list every mill, its capital, the number of the spindles, who made the machinery, the market price of the shares, and everything.

3433. (*Mr. Houldsworth.*) Would that sustain your argument at all with reference to India, because those you are speaking of spin 32's?—But they have been affected. I have already pointed out how they have been affected.

3434. You said 20's were affected; would you say as far as 32?—I think the China people are using 26's Bombay, and they are using less 28's/32's on that account.

3435. (*Mr. Fremantle.*) Do you know many instances in which Manchester spinning houses have set up factories in India?—No; I understand Messrs. Greaves and Son have started Bombay mills.

3436. But that emigration, so to speak, of the cotton spinning business, has not largely taken place?—I cannot give you the statistics of the mills in Bombay. They are easily ascertained, but I have not got them with me. I do not know of any firm in Lancashire that have mills in Bombay except that one.

3437. The number of mills in Bombay has largely increased in late years?—Yes, and I understand there are nine mills building in Bombay at the present moment.

3438. When did the establishment of cotton spinning mills in Bombay begin?—I cannot say.

3439. Would it be within the last 20 years?—Oh, no, there were a few before that.

3440. Therefore, you would not attribute it entirely to alterations in the price of silver lately?—Oh, no, by no means, because the first shipment of yarn from India to Hong Kong was sent in 1866.

3441. The first stimulus to the business of spinning cotton in India was given, I presume, by the American War?—Well, great stimulus may have been given at that time.

3442. (*Mr. Houldsworth.*) You said that the trade in Lancashire in 16's, especially to 24's with China had become nearly extinct?—Well, there is not much done in these counts now, although I have heard of a speculative transaction now and again in 16's/24's water to Hong Kong, but the export is very small compared with what it was.

3443. If the exchange now was steady and continued steady, do you think that that trade between Lancashire and China in 16's/24's would revive again, as against the trade from India?—I could not say that of 16's/24's. It is impossible to predict that. It might be that they could beat us with the hold which they have got of recent years, but I have no doubt in my own mind as to the trade in 28's/32's.

3444. That you could recover it?—I think so.

3445. To put it another way, have you any information at all that would enable you to answer the question whether the advantages to the Bombay spinner, apart from exchange, are not so great that Lancashire can never look forward to supplying China again?—My technical knowledge is not sufficient to enable me to answer that; it would require a man who knows the exact cost of spinning in Lancashire and the exact cost of spinning in Bombay by the most approved and best methods in both places to tell that.

3446. But as a merchant could you give any opinion if exchange were steady whether the trade would come back again?—I think a great deal of it would come back if we had a steady exchange. Every other thing would come to work with it. It is the fluctuations which is the severe thing at the present moment.

3447. Is there any other trade between Lancashire and China which has been affected at all in a similar way?—Yes; the trade in 6-lb. T cloths and the trade in common sheetings.

3448. Now where are they made; where does that competition come from?—The competition for the 6-lb. T cloths is from India, and the same reasons, to a large extent, apply to the 6-lb. T cloths that apply to the yarn trade; and I have a small table here showing—

3449. Could you put in a similar statement with regard to the T cloths as you have with regard to the yarns, so as to show the changes in the trade?—I shall do so.

3450. Is there any other thing except the T cloths?—Common sheetings.

3451. I am asking these questions to get at the magnitude of the dislocation?—Yarn is the principal thing. The trade in common T cloths and common sheetings is small.

3452. (*Mr. Barbour.*) Those 6-lb. T cloths and sheetings are made from common cotton?—The yarns used in Lancashire to make them were chiefly American, but in India they can imitate them.

3453. They are articles that can be made from Indian cotton?—They can be, and are, made from Indian cotton. At one time there was a considerable export to China of 6 and 7 lb. T cloths of common qualities made of coarse yarns. This trade has now nearly ceased. Bombay can supply them cheaper than Lancashire under the present exchange conditions. The following table shows how the trade in these cloths has been developing of recent years from Bombay to China. I cannot give the figures for Japan, as they are not stated separately in the India Government Returns.

EXPORTS OF Plain Cottons, Bombay to China.

Year 1883-84.	Year 1884-85.	Year 1885-86.	Half Year, 1st April to 30th Sep- tember 1886.
Yards. 2,147,278	Yards. 2,651,362	Yards. 3,221,817	Yards. 2,022,140 = for year 4,044,280.

3454. (*Mr. Houldsworth.*) Is weaving developing in India?—It is developing.

3455. As rapidly as spinning?—No, not so rapidly; it requires more technical knowledge.

3456. (*Mr. Barbour.*) Do you know whether the greater portion of the trade of the Bombay mills is with China or with India. Is the consumption of Indian spun cotton in India as great as the export?—I could not say. Of course these figures could be ascertained quite easily, but I have not extracted them.

Witness withdrew.

Adjourned till Friday.

Fifteenth Day.

Friday, 4th March 1887.

PRESENT :

THE RIGHT HON. A. J. BALFOUR, M.P., the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.

MR. J. W. BIRCH.

THE RIGHT HON. J. CHAMBERLAIN, M.P.

MR. L. I. COHEN, M.P.

MR. L. COURTNEY, M.P.

SIR T. H. FARRER, Bart.

MR. C. W. FREMANTLE, C.B.

MR. W. H. HOULDSWORTH, M.P.

SIR JOHN LUBBOCK, Bart., M.P.

MR. GEO. H. MURRAY, *Secretary*.

Mr. HENRY HUCKS GIBBS was re-called and examined.

3457. (*The Chairman.*) In your evidence the other day you explained in some detail the evils that arose from the uncertainty of exchange in commercial dealings between gold and silver using countries?—Yes.

3458. And you also, I believe, adverted to the evils which arose from the fact of currency appreciating in value?—Yes; by the diminished production of, and increased demand for, gold.

3459. These are two entirely distinct classes of evils, are they not? And to both of those you think a remedy more or less complete might be given if the system known as bi-metallism was adopted. Is not that your general view?—I should say the evils of the additional uncertainty of exchange produced by the depreciation of silver and the evils produced by the appreciation of gold in gold using countries would be remedied by this measure.

3460. Do you think that we can draw from historical experience any evidence to show that the bi-metallic system is possible and that it does produce that steadiness in exchange which you desire?—Certainly, we can produce evidence that the bi-metallic system is a possible one, we can also produce evidence that it prevents the possibility of such variations of exchange as we have experienced from the cause of the depreciation of silver. The appreciation of gold of course can occur from a vast number of other things, their effect on commodities as well as the effect on gold itself. The depreciation of silver is only the effect of the relations between that particular commodity silver, and gold.

3461. Could you give us a brief account of the bi-metallic arrangements which have been in force in the world during this century?—If you mean to say what the bi-metallic law was and must be, the bi-metallic law is described quite clearly in my article in "The Fortnightly" of October last:—I. An open mint to which every man may take either gold or silver to be coined. II. A fixed ratio which the gold and silver coins are to bear to one another. III. The enactment that the money so coined shall be legal tender to any amount at the option of the payer.

3462. That is your definition of bi-metallism?—That is my definition, and an inevitable corollary from it is, that as in England now every piece of gold is potential money at the will of the holder, so in France, from 1803 onwards, every piece of gold and every piece of silver was potentially, and at the will of the holder, money of the realm. That experience shows that here or elsewhere the enactment of the same law would produce the same effect.

3463. Has that state of things obtained in any country or system of countries during the present century?—In France it obtained from 1803 to 1873. The three points above-mentioned are the gist of the monetary law of 1803. In 1873 the law began to be suspended, that is to say it was made impossible for

anyone to take his silver bar to the Mint and at once receive coined money for it. The delivery of coin was at first postponed, and that postponement went on increasing until at last it was wholly suspended, but the law remains the law still in France, only the government has had and has the suspensory power.

3464. The law is in a state of suspended animation at present?—Yes, that is to say that part of the law only which provides the open mint to which everybody can take his silver for coinage. The rest of the law remains good, that is to say that the gold and silver coins are legal tender, and the gold and silver coins bear the ratio of $15\frac{1}{2}$ to 1 to one another; the silver in the one and the gold in the other bear that ratio.

3465. And you may pay your taxes and your debts either in gold or silver as you please?—Yes, as you please.

3466. Were any other countries associated with France during the whole or part of this time in this bi-metallic arrangement?—Yes, the countries forming the Latin Union were intimately associated with France, that is to say Italy, Switzerland, and afterwards Greece and Belgium. Greece came in afterwards if I remember right.

3467. Have you any facts to show that this bi-metallism obtaining over the Latin Union produced that effective stability of exchange which you attribute to it?—Stability in exchange; of course not a fixed rate, exchange can never be fixed, but the exchange so far as the relation between the two metals was concerned was fixed to begin with. Naturally it oscillated as the exchange must always do from other causes.

3468. But the exchange between a silver using and a gold using country did not vary more than the exchange between two gold using countries, or not much more?—Not much more; because bi-metallic France was there to hold the balance. It is quite right to say not much more, because particular causes at particular moments affected it, in the first place a great influx of gold into France had made some difference in it; again a great demand for silver to India had made a difference in it, because those who had to send silver to India had even to collect five-franc pieces and melt them, and send them out. All that would produce a small agio on silver as it might be, or an agio on gold as it might be at another time, but there was what one might call an immutable par of exchange.

3469. Between gold using countries and double standard countries?—Yes, and if you ask further as to gold using countries and silver using countries, the effect of the double standard in France and the Latin Union being this, that there was a fixed point round which the price of silver oscillated (which oscillation was the result of the exchange between the bi-metallic

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country and the gold using country), the price of silver in gold-using countries remained steady.

3470. You have told us that the bi-metallic system was adopted in France about 1803?—Yes.

3471. The Latin Union did not start as early as that, did it?—The Latin Union only started in 1865.

3472. Have you studied any of the monetary facts before the beginning of this century which would either confirm the doctrines which you have just been explaining to us, or the reverse. For example, did not bi-metallism in some form exist before?—Certainly, here in England.

3473. Did that produce the fixed ratio between the value of the metals which has subsisted since 1803?—It is very difficult to say what it did, because the whole monetary arrangements in all the countries were so imperfect. The great evils that we suffered from here were more the evils of either debased coinage in the earlier time or worn coinage in later times, so that either gold or silver departed from the country because the coins in the other metal were degraded in their character by being worn away or filed away.

3474. In fact, by Gresham's law the good coin was driven out?—That would be always so.

3475. But is it not the fact that our coinage was put right about the year 1696 and that subsequently to that we had not to suffer from either of the two evils which you have described, neither from debased coin nor from coin of small weight?—The restoration of the coinage was not quite successful in this respect if I remember right; it is a long while since I read it, but I think the good coin was issued, and the inferior coin remained out in great part, I mean the worn coin. People naturally paid in the worn coin and shipped away the good coin. That they would do.

3476. Then there is nothing in the experience of the last century which would throw any doubt upon the bi-metallic theory?—I do not think there is.

3477. Nor from any other facts that have come under your notice in the monetary history of the world?—I think those causes that have been alleged as militating against the bi-metallic theory are all capable of explanation, either by showing that other causes had led to the banishment of the gold, or by showing that no harm was done thereby to the nation. Of course, it must be admitted that from one cause or another, one metal, gold at one time, silver at another time, will be the prevalent coin in use. It is common to say that in France, for instance, there was no gold; yet there is not a shadow of proof that there was absolutely no gold; and at another time that there was no silver. Most of us remember the time when if you went to Paris, and had to travel into Italy, for a rouleau of gold you had to pay a trifling agio. Another time if you wanted silver for gold you could not get it, but that related not to the whole quantity of gold or silver that might be supposed to be in the country, but to that little floating fringe of gold or silver which serves for such purposes. There was no year, for example, in France during that time of 1870 to 1873 that gold was not taken to the mint for coinage, although the sums so taken, were, of course, smaller than they were wont to be. That is the information I got from the Paris Mint, through Messrs. Rothschilds.

3478. You would admit, would you not, that even on the bi-metallic hypothesis there would be a tendency to drive out the dearer metal from a bi-metallic country into a country where that metal could exchange for what I may, for the sake of argument, call its natural equivalent?—Yes, I think you have just put it rightly. That is, the dearer metal will go to a country where it will purchase more. The common view and the common interpretation of these words, the dearer and the cheaper metal, seems to have been in newspaper writings, the metal that can be produced at the cheapest cost; but that is not at all the case, it is the metal that will buy the most in another country, as is shown entirely by what happened in the United States, where they at one time

had a ratio of 15 to 1, the effect of which was that the gold all went away, because one ounce of gold was in France equivalent to 15½ ounces of silver. At another time they had a ratio of 16·002 to 1, and the effect of that was that France having a bi-metallic ratio of 15½ to 1, 15½ ounces of silver exported from the United States and sent to France were there equal in purchasing power to an ounce of gold. The man in the United States, therefore, remained with half an ounce apparently to the good.

3479. People will always take their goods, whether their goods be coin or something else, to the place where they will get most for them?—Certainly.

3480. And, therefore, if owing to legislative arrangements gold was worth less at a certain time in France than it was in Germany the gold would go to Germany?—Certainly; in course of time.

3481. And that fact would, I suppose, be urged by you as a proof, would it not, that legislation can decide what should be the ratio between coins of the different metals within a country?—Certainly. Legislation has done so and can do so.

3482. And the fact that gold was driven out of France at one time and silver at another time, showing that gold at one time and silver at another fetched more out of France than in France, proves that the French legislature did determine the relative value of the two metals in France?—Of course.

3483. (*Mr. Courtney.*) I am not quite sure of what is meant by the relative value of the two metals?—That which would purchase most in any country necessarily goes to that country. In France, by the bi-metallic law 15½ ounces of silver and one ounce of gold had the same purchasing power practically and legally, but it might well be that in another country the one ounce of gold might for a time have a greater purchasing power. In that case the gold would naturally go to where it would purchase most.

3484. (*The Chairman.*) The fact that gold flowed out of France is a proof that that was so. There was no other reason why France should be denuded first of silver and then of gold?—Yes, that is what I would say.

3485. (*Mr. Courtney.*) Do you call that a permanent or an evanescent relation which was established in France?—I should call it a permanent relation in this respect, that everybody was always at liberty to get his bar of silver or gold coined in France, and always at liberty to pay his debts in that which he received for his bars.

3486. Because if the result is as the Chairman suggested, that France might be denuded at one time of one metal, and at another time of the second metal, would you say that the relation subsisted in the country where only one metal survived?—That is entirely a theoretical question, because it was never really true at any moment that France was wholly denuded of gold nor wholly denuded of silver. I have read, lately, that the amount of silver, when you could not get any silver in change without paying for it, exported from France was very small, and the amount remaining in France was very large; therefore, I would say that at no time was either metal absolutely expelled from the country, but I say that the relation cannot be otherwise than permanent when either the 15½ ounces or the one ounce could pay any debt, and when you could always get your coins at your own mint coined in that relation. At this moment you cannot get your coins so coined, but if you have them in your pocket you can pay your debts just as you did before.

3487. (*The Chairman.*) Could you describe the exact method by which this compensatory action, if I may so describe it, operated in a country like France?—I think I must ask what you precisely mean by the compensatory action? Do you mean that which is described by Mr. Jevons when you have a double standard and two metals serving as money. The output of the mines is regulated, that is to say, that there are less variations in the production of the two metals jointly than there are in the production of either one alone.

3488. No, I was not thinking at that moment of the production of mines which you will probably agree with me had a comparatively slow effect?—Extremely slow upon the value of currency.

3489. I was rather thinking of the variations that would occur in the relative prices of the two metals, were it not for the bi-metallic law subsisting in one country?—Your question refers to the price of another metal in a mono-metallic country, does it not, because in the bi-metallic country there is no price at all. I distinguish between agio which is governed by wholly different laws from the question of price of a commodity, as is obviously seen when you perceive that notwithstanding the enormous variations in the production of the two metals the agio never reached an average of more than $1\frac{3}{4}$ centimes on the Napoleon. You cannot call it price in the same country where you can buy your sheep or whatever it is with either the gold or the silver indifferently. Nobody there made a difference, such as you find made, or used to find made in Italy when there was a paper currency, and when there was a number of *Zecchini* still existing in Rome, and a man said "You shall have that thing" for so many scudi, or if you pay me in gold you "shall have it for such and such a smaller sum." That is not what you mean, I suppose.

3490. Let us take a concrete case, say a sheep cost in France 10 Napoleons in gold in 1860, and 10 Napoleons in gold also in 1870. Then you may say with certainty that it also cost 200 francs in 1860, and also 200 francs in 1870?—Certainly. That is you might say 200 gold francs, or 200 silver francs; there was no distinction.

3491. But if there had been no bi-metallic law you could not have said such a state of things would have existed with certainty. It might have been worth in 1870 as it was in 1860 10 gold Napoleons, but there was no certainty that it would have been worth 200 francs in 1870 if it was worth 200 francs in 1860?—No relation to it at all.

3492. What I want you to explain to the Commission is how the bi-metallic law produced that permanence in the relative value of the two metals?—I think it is only the action of the law. That Act or that law answers the question, "What is a pound?" I put it in English sterling because of those words of Peel's. People ask, "We have engaged to pay a pound for so much. What is a pound?" "A pound is 123·27547 grains of standard gold, or 1893½ grains of standard silver. That is the answer, that is a pound."

3493. And therefore your opinion is that it is sufficient for a government to say that debts shall be paid indifferently in either of two metals at a certain ratio, for that ratio to be the one for which those metals will always exchange?—I know of no instance where it has not been so, the mint being at the same time open for coinage of both metals. The gold existing in the country may no longer be there for payment to be made in the particular metal. People asked, "What is the price of that?" "So many francs." Nobody said, "Will those francs be gold or silver?" They said, "So many francs." But the question which I thought perhaps you referred to was what was the effect in a mono-metallic country upon the price of the several metals? That is, what was the effect in Germany on the price of gold, what was the effect in England on the price of silver?

3494. But governments have not been able, have they, to regulate the relative value of gold and paper currency where the paper currency has been forced?—Certainly not.

3495. Now, would you explain to the Commission how you would distinguish between the two cases which have a certain superficial resemblance?—Paper currency has no value in any other country at all; it has no value at all, excepting either as representing gold, or as not representing gold; it is a mere forced currency, a saying to the people, "This is your money of account and you shall use it." If that be the case, and if this is my money of account, and I

can use it, I naturally use that for payment of my debts, and I send that which is valuable in other countries away, and use it and get commodities with it which I could not get for the paper. There you remain with a valueless currency representing the credit of the Government, but a thing valueless in itself. The silver has not been valueless in itself at all, it is that which is money elsewhere.

3496. There was a time, was there not, in which there was a forced paper currency, and in which the Bank of England note was slightly depreciated?—Yes, a sovereign was worth about 27s. in paper, I think.

3497. Well, let us for the sake of convenience say that a 5*l.* note was worth only four sovereigns?—Yes.

3498. At that time was a 5*l.* note not legally equivalent to five sovereigns?—Yes, and I think the House of Commons passed a resolution that a one pound note and a shilling were of equal value with a sovereign, the facts notwithstanding.

3499. And the Government took it in payment of taxation?—I think they did.

3500. And the debtor who owed 100*l.* had his choice whether he would pay in sovereigns or in Bank notes?—Certainly.

3501. There is, therefore, a similarity in that case to the case of a country in which gold and silver are legal tender, and the government accept either metal in payment of taxes, and will consider that any debt which has been paid in either the one or the other has been legally extinguished?—Yes.

3502. And yet there is a difference in your view; because while the action of the government succeeds in the case of the double metallic standard in keeping them at a fixed ratio, the action of the government does not succeed in the case of a paper currency and a gold standard in keeping them at a fixed ratio?—Well, there is this difference between them, that you have the right to take the material to the Mint in the one case, when you have not a right to take your material to the Mint in the other, and if you did you would get nothing for it. If you take your silver you get coins of the realm for it. You do not take paper and get Bank notes for it at your pleasure. One of the three points of the law is wanting.

3503. That observation is true, but is it relative to this particular argument?—What I maintain is that you cannot have the bi-metallic law in existence without those three points that I mentioned before. The forced paper currency of course does not involve one of the three points; it is really the substitution of an arbitrary currency, an enforced currency for a gold currency, although nominally of course a man may pay his debts in the gold that the other is supposed to represent, he never does so. Why should he? The metal is then a commodity like hides or tallow. He buys it when he wants it. The paper is of necessity not a concurrent money with gold. It is an unkept promise to pay gold.

3504. Then in your view free mintage is an absolutely essential element?—Absolutely.

3505. You do not then attach the value which some theorists do to the fact that the Government declare that debts may be paid indifferently in either one of two mediums of exchange?—That is one of the points, only one useless by itself for my argument.

3506. Could you explain to us exactly how you think this free mintage enables the ratio to be maintained. Let me put a case which will show the difficulty that occurs to some people in a strong light. Let us suppose that, through some discovery of a new mine on an enormous scale the supply of silver could be so increased at a small cost of production that its natural value would fall to a quarter of what it is at present. Let us take the country in which there is this free mintage, do you not think that the free mintage, so far from facilitating the government in keeping up this fixed ratio, would rather render that task more difficult; if there was absolutely free mintage of this extremely cheap metal would it not render it harder than ever to maintain the fixed ratio between gold and silver at 15½ to 1?—It seems

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plausible, but it would not be the case. The cheapness of the production seems to have nothing whatever to do with the purchasing power of the money. If a man can produce his silver at 1s., and its value at the mint, that is its value in the purchase of commodities is anywhere certain at 4s., it is so much the better for him, he has made a great profit; the miner has made a great profit, but it makes no difference at all, it seems to me, to anybody else except to the miner. There is a shop always open that is willing to give him a certain number of francs for his silver. That is the thing. So long as there is a shop where so many francs will be given him for his ounce of silver it is quite clear that he will never sell it to anybody else for less.

3507. I quite understand that argument, but let me just remind you of the course of my examination for the last few minutes. I have accepted from you that governments in bi-metallic countries were able to keep a fixed ratio of exchange. You admit that they were not able to keep that fixed ratio when they were dealing with gold and paper instead of with gold and silver. You then told us that the reason why they could in the one case, and could not in the other, maintain that fixed ratio was because in the one case there was free mintage of the silver, and in the other there was not, and obviously could not be, free mintage of the paper. I then pointed out that at first sight free mintage so far from aiding the Government to maintain this ratio would seem, on a certain extreme hypothesis which I described to you, to render it more difficult. You do not feel inclined to withdraw from your position; your free mintage is an essential part of the bi-metallic system if you are able to maintain the ratio?—No, I do not withdraw from that at all. The effect of what you are suggesting is this: As is commonly said, the country would be overwhelmed with silver,—we will take it to be silver. The meaning of “overwhelmed” would simply be that prices would be extremely increased, the mass of the total measure of value composed of gold and silver would be enormously increased, provided always that the gold did not fall off at the same time; the sole and only effect would be the increase of prices, in my view. Whatever overwhelming there might be, of either metal, it would fall with greater force upon mono-metallic countries than upon a group of bi-metallic ones.

3508. Is not the distinction really to be found in this, that in the case in which there is a forced currency running side by side with gold, gold is wanted by those who have to make foreign payments?—Yes.

3509. Whereas, in a truly bi-metallic country it is a matter of perfect indifference to the inhabitants of the country whether they take gold or silver for their purpose?—Yes.

3510. Where there is a forced paper currency there is a certain class of payments which can only be paid in gold, and for these payments the man must provide; and the government is powerless to interfere?—That is, indeed, what I said, only I did not express it so clearly when I said that in the case of the forced paper currency it was useful at home but was useless abroad, that is to say, that the man would send his sovereign abroad because he can buy goods with it, and he would not send his piece of paper abroad because he could not buy anything with it.

3511. (*Mr. Chamberlain.*) He could not send his silver abroad on the hypothesis that it is very much depreciated?—Yes, he could, if there was another bi-metallic country.

3512. To another bi-metallic country, but to a mono-metallic country?—He certainly would not send his silver abroad to a country where gold was the sole standard, because his silver is merely a commodity in that country, not money at all, but simply a commodity; therefore he would no more export silver than he would export wine, if wine was not wanted in the country to which he had to send it; but he could send it where silver was the sole standard, was the money of the country.

3513. He would pay for his importations from the mono-metallic country in gold which he would purchase in his own bi-metallic country, at the fixed ratio with silver?—I do not think that this is exactly what would happen, because there is no question of purchase at all. What would happen is that the man would export from England such and such goods and he would draw for the amount of those goods in francs; they would stand at his credit in francs; no question of gold or silver at all.

3514. (*The Chairman.*) But let us take the case of the balance of trade between say England and France?—Yes.

3515. Let us imagine that the causes which you have described to us have driven gold out of France to a great extent?—Yes.

3516. The balance of payment is against France, in other words France has to pay England for goods imported from England more than England has to pay France for goods imported from France, the payment being to a gold standard country must be made in gold, how does France get that gold?—France does not get it because it has not got it to get. It cannot get it. The matter is then regulated by the balance of indebtedness as indicated by exchange, and France must send goods. You cannot send that which you have not. The same question would have arisen with Germany when Germany was a silver country. The balance is against Germany. England being a gold country the money must be sent in gold; how are they to get it? They cannot, and do not get it. What happens is that the exchange rises in that case till the balance of trade is redressed.

3517. The exports from France are stimulated and the balance of trade is paid not in coin but in goods?—Yes. It cannot be paid in coin which does not exist. It may be paid either in goods sent direct to the Creditor country, or by way of trade through other countries which may or may not have gold to send.

3518. (*Mr. Courtney.*) But is it not historically true that for a great many years silver was pouring out of France whilst gold was being poured in?—Yes.

3519. That is just the converse of the position put by Mr. Chamberlain. That is the case in which the gold poured in and the silver poured out, expressly in consequence of the bi-metallic law and the fact that gold was being produced relatively much more easily than silver. I mean the period from the time of the gold discoveries onward?—I do not admit that; I do not think that was the case at all. The reason silver poured out of France was that there was an enormous demand for silver for India for the making of railways; at that time silver had to go, and the place of silver must necessarily be taken by gold, as it would naturally be in a bi-metallic country.

3520. But was not the place where silver could then be got most cheaply France, because under the bi-metallic law you could get in France for gold, as long at least as the silver currency was not exhausted, 15½ times its weight in silver?—Yes. France was the natural place to go to for it on that account. It was practically the only place. You could not of course demand the silver; that you could not do. Practically however you somehow got it.

3521. Practically you could carry your gold to France, and since gold there circulated in the ratio of 1 to 15½, you could get your silver out of France at that ratio plus a little cost?—The difficulty, you know, was, that after sweeping up the available bar silver, you had to collect, and pay for collecting, 5 franc pieces, and to sustain the loss of weight between the mint weight and the remedy, and probably a further loss by wear.

3522. But the fact was that many millions did annually pour out?—I think, perhaps, some of those concerned with India would tell you exactly how much did go, but a great many millions went out to India for the purchase of railways. It was not because you could pick up gold cheaper.

3523. Then why is it that people took that gold to France more than anywhere else?—But I suppose they did not do so; I suppose they took their gold to England; that was the first place it came to.

3524. It came to England first, but then the market where that gold could be best disposed of chiefly was France, and France substituted a gold currency for a silver currency, and the silver poured out. These are historical facts?—I demur to that. I demur to your statement of the order of events. The silver poured out, and as a matter of necessity its place had to be supplied with gold. The gold came to the Bank of England. That created a balance of trade so far as the gold went against England, and besides the silver collected in France was collected on English account, and swelled the balance against this country, the gold, therefore, of course had to go out of England; it could not all stay there, because we owed Australia so much, and we owed France so much. I do not suppose any Australian was so extremely good as to send us one million of gold and not expect us to owe one million for it. It was owed, and it had to go where it was most natural that it should go. France had lost and was losing its silver, and the silver was satisfactorily replaced by gold. It was not that France was a bit better off for having the gold.

3525. That was not the point. The point I wished to bring out was that under the operation of the bi-metallic law in France, the natural course of trade led persons who were in possession of this gold in England to carry it over to France, exchange it possibly for commodities there, which commodities were again exchanged for silver, and that silver went in the natural course of trade to the East?—Well, my impression is that it was not so, but I do not know enough about the trade to the East to answer perfectly. I do not think that was the case. Silver was being exported from France, and this created a void in France which had to be filled. England owed France for the silver, and had to pay her. If silver is taken from France you cannot pay that debt in silver. That is obvious. It had to be paid in gold. That is what I think is the cause of the thing.

3526. We may doubt about the causes, but you allow, at all events, these two phenomena to be true, that during the years that followed the gold discoveries gold poured into France and silver poured out?—Yes, certainly.

3527. And that practically the actual currency in use in France was to a large extent transformed from silver to gold?—Yes.

3528. (*The Chairman.*) But you would say that was a necessary and not unbeneficial result of the bi-metallic system?—Certainly. That is to say, that the shipper was able to get a certain sum in silver, which was as profitable to him as the gold was, and the gold was more profitable to France in the purchase of goods abroad and *vice versa* at different times.

3529. (*Mr. Chamberlain.*) The Chairman put to you an hypothetical case. He supposed that the balance of trade between France and England was against France, and that France, therefore, had to pay to England a considerable sum in gold? Now are there not two ways in which that debt might be met; in the first place the debtors might give a premium for gold in France, and buy the gold which they want to pay in England. If they did that they would destroy the ratio?—Well, I do not admit the destruction; but the facts are as you put them, and you might take a more extreme case than that; let us put this, that supposing in a bi-metallic country gold and silver are equal, that a silver using country, let us say the rulers of China, were to take it into their heads to replace their silver by gold. There is no doubt that then you can imagine a great disturbance in the bi-metallic law, because though the Chinese would have to pay ultimately, if not at first, a very heavy premium for that which they were proposing to do, theoretically they could do it. But in the ordinary course of trade such a thing does not happen, as I showed by the answer I made

sometime before. The average amount, although 2 per cent. was paid for perhaps some short portion of a month on two occasions, the real average was 1½ centimes in the Napoleon, so that the ordinary course of trade produced an agio, or may produce an agio, I should rather say, because I doubt on the whole whether there was much agio produced by the course of trade. No one has yet made out the statistics of what amount of silver was purchased with an agio, or what amount of gold was purchased with an agio on the two occasions. It seems to me that as far as regards the gold that was thus obtained, the agio was created because a traveller perhaps wanted to get his rouleau of gold as we have often found it. The traveller was mulcted and the Bank of France gained. The agio, of course besides this affected the exchange with other countries, raising the gold-point.

3530. I have not quite come to my point. What I am putting to you now are really prefatory questions. Going back to the point of the Chairman, the cause of this balance as between France and England. What I put to you last was this, that in order to meet that balance, one way might be for the debtor to buy gold, giving a premium for the gold, in which case the bi-metallic ratio would be disturbed, but I understand you to say that does not happen, and that the alternative which does happen is that the exchange alters, and that goods are sent in order to provide for the balance?—That is so.

3531. Then now comes my question. Is not that saying in other words that the French producer has to accept a lower price for his goods than he otherwise would do in order to provide this balance?—Yes.

3532. And therefore that although there is no alteration in the ratio between gold and silver, the price of goods is depreciated in consequence of the artificial legislation which maintains the ratio between the two metals?—No, I agree to the first part of what you say, but it seems to me that the price of goods is altered by the fact of a debt being due from France to England which has to be paid, which must be paid in meal or in malt. If they have gold wherewith to pay it, that gold by the very fact as compared with commodities is dearer than it was. If they have supplied themselves with too many calicoes, or too much goods from England of any sort, rails or any other things, if they have done that and they have not had wine and French goods enough to sell to us, they must look about for the means of paying us. It is not enough to say that they pay us in gold, that is all right because it is our money. That gold must bear a certain relation to commodities, and that very fact seems to me to show that the gold would become dearer as respects commodities, so that they are not worse off on that account than in the case you speak of.

3533. But if the French producer were able to pay this balance in either metal at a natural price, and not at an artificial price, he would not have to find depreciated goods for the payment?—Yes, I think he would. In any case the metal that he has represents goods. It is metal that he has bought with goods at some former time. It is only another mode of remitting goods. If he is driven to such straits that the ordinary exports from France do not suffice to pay for the imports then as a matter of course without any question of the double standard, goods fall; and goods falling is in other words the gold rising. The gold, therefore, that he sends is something that is of more value to him than it would otherwise be. In either case he loses, and he loses the same.

3534. But is not the position of the French debtor this, that he cannot find gold, because by that hypothesis there is a scarcity of gold in the country to pay his debt to England; he can only find silver at an artificial price above its natural price, and therefore he has to find depreciated goods or goods at a depreciated price. If he could find silver at its natural price the transaction would be balanced without any loss to the producer?—What is the natural price,

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may I ask? I do not mean you to answer, but I put the question.

3535. At the varying price which is governed by comparative production and use of the two metals?—But could anybody say what has been the cost of production of the mass of silver in the world?

3536. (*The Chairman.*) Let us put it in this way. There is no dispute as to the price which prevails in countries where there is no alteration in the relative value of the coins?—Where there is a bi-metallic regulation in any country the price in mono-metallic countries necessarily follows, and it has, and did, and always must follow it. I do not mean to say that it will be exact.

3537. Are you not now dealing with a case where the bi-metallic country is a comparatively small proportion of the commercial world, and where it only regulates it imperfectly on the bi-metallic theory?—Yes, that is to say that so long as France stood alone between a silver mono-metallic country on one side and a gold mono-metallic country on the other side, it was in a much better condition than it was afterwards when it had a gold country on both sides of it.

3538. (*Mr. Chamberlain.*) Is it not the fact that where a bi-metallic country has dealings with a mono-metallic country and is a debtor to the mono-metallic country, the effect of the artificial regulation is to injure the producer in the bi-metallic country?—I think not. Whenever the balance is against a country, whether bi-metallic or otherwise, it is a disadvantage to the remitters; but in the instance that you take he would, I suppose, have at the end of the year to write off a loss, because he has to go into the market and buy goods at a higher price in order to make his remittance.

3539. That is to say, he has to buy goods at a higher price than he can dispose of them for?—I think by your hypothesis he has to dispose of them, because he has to remit them.

3540. He buys them at the market price, but he has to send them to England at a depreciated price, and that is what constitutes his loss?—No, I do not take it to be that. I say he buys them at a higher price, not at what was the market price when he began. He has to go into the market, and by his having to go in and by necessity to buy the goods he raises the price of these goods upon himself. We may take it that the goods in England would fetch their normal price; they are not sent because there is a pressing demand for them.

3541. Owing to what you have said of the alteration of the exchange it is necessary to provide for the balance in other ways?—At present we are talking of his doing it without the question of exchange. As a matter of fact it would be done by exchange. The alternative as spoken of by you is that he might go in and buy more goods and so rectify the exchange, the balance of trade, at his own expense. If instead of that he has the gold by him, he has a sum of gold at his disposal we may suppose that gold by the hypothesis would buy goods at a cheaper rate. If he had not to send them away the gold would be by that hypothesis appreciated in respect of goods. He has to send away that which commands more goods, in other words that which is a loss to him.

3542. (*The Chairman.*) Then leaving that, and turning for one moment to a point touched on some time ago, namely, the power of a country to fix the exchange between the two kinds of currency, I suppose you would admit that debtors and creditors too may in a bi-metallic country by special contract arrange in what metal their debts are to be paid?—Certainly.

3543. (*Mr. Courtney.*) Do you lay that down as a mere question of theoretic economy, or do you mean that it would be practical in the country that the law should allow people to enter into contracts that their debts should be paid in gold or silver?—Oh, certainly; as the law now is, a debt should be paid in gold and gold only, but if anybody says, "I wish to be paid 'in cabbages,'" of course he may. No one can pre-

vent him, nor prevent the buyer from agreeing with him.

3544. No doubt in articles of that kind, but supposing a person contracted a debt now—but this is more a question of law—in pounds, shillings, and pence, and the stipulation was that it was to be paid in silver only, do you think that the person tendering the debt in gold would not be making a legal tender in spite of that stipulation?—As you say, that is a question of law. I should say, as a question of common sense, if a man makes a contract to be paid in silver he would have to be paid in silver. Such a contract would in fact involve two gold-contracts each of which could be enforced. One is a contract to pay gold for the work done; and the other a contract to deliver silver for that amount of gold.

3545. (*The Chairman.*) Then your view, at all events, is that the fixity of ratio between gold and silver in bi-metallic countries is not due to the fact that a debtor can always, irrespective of any special arrangement, pay in the cheaper metal, but to the fact that it is nobody's interest to make these special contracts?—The fixity of ratio is due to the fact that by law a debtor can cause either metal to be coined at that ratio and can pay his debts in either metal so coined. It is nobody's interest to make special contracts, unless for particular purposes.

3546. Unless for some exceptional purpose, but would that be the case in countries which have partly a forced paper currency, and partly a metallic currency. Would it not be the practice in those countries for it to be stated in every contract in which of the two mediums of exchange the contract was to be paid?—That is the case, or used to be the case, in bills of exchange in Spain. They expressed that you were to be paid *en Oro u Plata*, and not in paper money of any kind.

3547. Now I return to the question which I put to you some time ago. You said that it is possible for a government without any difficulty to itself to fix the ratio between two metals, and it is not in the power of a government, whatever arrangement may be made about legal tender, to fix the ratio between paper money and gold money?—I return to the answer that I gave before, the paper is valueless out of the country; the other is money out of the country.

3548. And therefore, if you could conceive the whole world to be united in the issue of a forced paper currency, you think that a government could fix the ratio between gold and paper?—I do not see at first sight that it would affect them at all, I mean on the hypothesis that it is money somewhere, that the gold is money in some countries and the paper money in others. If, on the second hypothesis that neither gold nor silver is money anywhere, it would be an eccentricity on the part of one government which no other government could interfere with. If all nations had a paper currency and one nation had a bi-metallic currency that would signify nothing.

3549. That is not my hypothesis. You see the difficulty that first strikes the opponents of the bi-metallic theory is this: How comes it to be possible that a government by any legislation can arrange the ratio between the two metals? When that objection is stated to a bi-metallist he gives various reasons which you have very ably stated to this Commission, but then the objector goes on to ask: "How is it if 'a government can fix this ratio between the two metals it is unable to fix the ratio between gold and paper'?"—My answer is that it cannot do the latter because the paper is no use anywhere in fact excepting in his own country. Moreover the relation between commodities, gold and silver, bears no analogy to the relation between a commodity or metal and a promise to deliver that commodity or metal on demand; and that is what paper money is at best.

3550. That is not quite a complete answer. Suppose the whole commercial world were united in the use of a forced paper currency, and a gold currency, the paper currency being issued in excess just as the paper currency of the Bank of England was issued in excess

between 1798 and 1818, would it be possible under those circumstances for the united governments of the world to say that gold and paper shall exchange according to their nominal ratio?—I do not admit the phrase “shall exchange according to their nominal ratio,” for there is no question, under a bi-metallic law, of gold and silver exchanging *inter se*. But government can decree that a man may pay his debts in paper or gold; but it cannot be called “fixing a ratio,” as in the last question, because the paper is a promise to pay the gold. Even if you call it a ratio of 1 to 1 it must be inoperative, because no ounce of gold would remain in use, and the paper would do the work of money, if all the world were agreed. Of course the thing would be theoretically possible. It would be an infinitely absurd way of carrying on commerce, but if all agreed, and kept their agreement, and there never was any difficulty between them on the subject, I suppose you might have, as Mr. Magniac argued the other day it would be a right thing to have, a vast paper currency legal tender in all commercial nations. “It is true,” said he, “that from adherence to old prejudices it might be well to have some gold to stand against it, but that would be,” he thought, “quite unnecessary.”

3551. Now let me leave that branch of the subject, and ask you what in your opinion the effect of an association like the Latin Union is in preserving a fixed ratio between gold and silver in countries which do not belong to the union, mono-metallic countries?—That is to say the effect of the existence of the Latin Union upon Germany as respects gold, upon England as respects silver as they were before 1873. It is not a fixed ratio or a fixed price which is produced, but a par of exchange. What would happen is this; silver comes we will say to England consigned to anybody. How is he to get money for that silver? He goes into the market and offers the silver, and the price is said to be 59*d.* an ounce. “No,” he says, “Certainly not; why am I to give it you for 59*d.* an ounce; I send it over to Paris; there it is coined into a certain number of francs, and I draw for that number of francs; I sell my bill on the market, and I receive English money.” We are, of course, supposing that exchange is about par. That money, then, will necessarily be the amount produced at the exchange of the day by the number of francs that are to my credit with my correspondent in Paris, therefore I get my 60*d.* Well, you may have to ask me further questions, I dare say, but that is the primary action. I may add that nobody did send, or hardly ever did send, their silver to Paris unless it was wanted in France, because the fact of being able to send it was a sufficient answer to anybody who wished to give less than the price corresponding to, or based upon, the ratio in the bi-metallic country.

3552. But if that is a complete account of the affair it does not seem at first sight obvious why the Latin Union found itself incapable of dealing with the difficulties which arose out of the German demonetisation of silver?—I do not see that they were incapable.

3553. They supposed themselves to be incapable?—They evidently supposed themselves to be incapable; but a great number in France thought they were not incapable, a great number at the same time thinking they were, and I suppose the latter was the greater number; but the only effect as I said before of the overwhelming of France with silver would be that silver prices would have risen everywhere. I do not see exactly how your last question hung upon the one before.

3554. I will tell you the relation my last question had to your answer. You said it was not necessary for money to pass, but it was only necessary for people to know that in case of necessity a bill could be drawn?—A shipment could be made, and a bill could be drawn.

3555. Therefore it would seem that it is not necessary to have a large bi-metallic area in order to

keep the currency of the world straight?—That was the real effect of the bi-metallic law in France. That was what happened all through those 70 years; you may see that by the price of silver. That fluctuated so very little. It rose, I think, about 2*d.* That rise was when there was a great demand for silver for India; but of course if you are to carry the thing out in theory rather than in practice you would see what would happen; the ultimate result would be that you would send silver to France, and that you would again send it, and again; but even if, as Mr. Courtney said just now, an enormous quantity of silver were produced in the world and continuously being sent, that could not properly be described as overwhelming France at all. It would be indeed a forced import into France, because it is money in France though a commodity here, but the result would only be that these forced imports into France would materially alter the exchange between France and England, and continuously alter the exchange till the exchange rose to that point that the value of the silver in England would be much less than 60*d.* If it was a question only of exchange now, I believe the exchange would have to be 37 francs to the 1*l.* sterling to bring the price of silver down to what it is; but it never would have risen to that point; if silver were sent the result would be merely an excess of imports into France and an alteration of the exchange.

3556. But if through the depreciation of, let us say, silver in mono-metallic countries, the whole of the gold is driven out of a bi-metallic country, that country loses all efficacy as a compensating machine, does it not?—No. That has been said over and over again, but nobody has ever attempted to give me any real proof of the fact, or rather disproof of what I say, that whatever was the case, if there was not a gold snuff box left in France, yet if I sent a bar of silver to the French Mint I could draw upon the number of francs that came to my credit accordingly, and unless the amount of my shipments to Paris and other people's shipments had so turned the balance of trade against France that the exchange had risen, I should say beyond its normal point, I should always get my 60*d.* here in England, my $\frac{2}{3}$ of 1*l.*

3557. Is not the logical conclusion of that theory that it does not matter how small your bi-metallic country may be, and if Switzerland alone was to establish bi-metallism the whole of the rest of the world being mono-metallic, Switzerland would practically regulate the relation between gold and silver in the universe?—As matter of theory it would, as matter of practice it would not, because the balance of trade would be at once and so entirely against Switzerland that there would be no takers of bills on that country.

3558. Then is it not true that when the more valuable metal has been completely driven out of the bi-metallic country, that country loses its efficacy as a compensating machine. You returned a negative answer to that, but it appears to me you would reply in the affirmative?—I say the obscurity lies in the use of the words compensating machine, it would be regulating rather than compensating. It could not lose its power as a regulating machine, because the price of silver in the mono-metallic country in theory would follow the exchange upon a bi-metallic country.

3559. But when from, say, the Canton of Berne, all gold had been driven, would it not be possible for silver to fall indefinitely in relation to gold in every mono-metallic country in the world?—Yes, that is really a *reductio ad absurdum*, because trade would be dead and buried, there would be for the time no trade at all between them.

3560. But by such a proceeding the Canton of Berne would be excluded from the commerce of the world?—No, but I suppose their commerce would for a time come to an end. I do not look at it quite as bringing the controversy to that crucial point.

3561. I chose an extreme case, because it is much easier to argue in theory on extreme cases?—That

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is so. But it is only a theoretical argument, not pretending, I think, to have a practical application.

3562. (*Mr. Courtney.*) Would it solve the whole difficulty and get rid of the whole trouble of Lancashire, India, and other people if we established a bi-metallic law in Jersey?—That is an extreme way of putting it; that is exactly the same as the Chairman's way of putting it.

3563. (*Mr. Cohen.*) Suppose you established a bi-metallic law in Jersey or in Switzerland, that being a bi-metallic country, you would send silver there in order to get gold away from it, but as soon as the resources ceased to afford any gold, then you would no longer send silver there for that purpose?—No, I do not think that in theory that is the case at all. I do not myself see what the existence of gold in the bi-metallic country has to do with the matter. The gold is transferred here in England. Now if there were no gold at all, (I will leave for the moment the extreme case of Berne, or of Jersey, and I will take France,) the existence of gold in France I have always contended does not affect practically the question, because I sell my bill here in England, and the gold that belongs to somebody else is passed to me for that bill, and the silver that is sent to France which entitles me to that gold is only so much additional export from England, and import into France, and it alters to that extent the balance of exports and imports of the two countries.

3564. Independently of what you have spoken of the natural movement of trade between the two countries, there is under a bi-metallic system an exceptional movement caused by a desire to buy or sell one of the two metals. That operation will continue as long as any of the metal in demand remains in the country; but that ceases when there is no gold to be got in the bi-metallic country. When they send silver to get gold that is a distinct operation from the ordinary movement of the metals, which is governed by the state of trade between the two countries?—That is so. If the agents were to send for gold that would be the effect ultimately, as they would have to pay for that gold a vast deal more than it was worth in commodities, because when you came half way through the gold, you would find that the agio, you might call it, but the premium really, the price which at that time in that exceptional case they would take would be enormous. For the amount of gold that they bought they would have to pay double its value. That seems to me to be travelling into another country.

3565. If we had a bi-metallic currency all over the world the temptation to send silver to the one place to exchange it for gold to the other would not exist?—No, not if they were all bi-metallic.

3566. (*The Chairman.*) When a bi-metallic country is denuded absolutely of one of the metals, and is therefore in practice mono-metallic, what advantage is it to the rest of the world that it is theoretically and legally bi-metallic?—My answer is that it is not mono-metallic so long as it will coin *ad libitum* either metal, and so long as one may pay one's debts in either. You ask it at that moment to coin silver; it coins a piece of silver into francs. You are the owner of those francs, and you draw for the amount, and you must be dependent, so far as I see, upon the exchange between the two countries, as I was endeavouring to say just now. I am quite willing to be shown that it is not so, but I have frequently asserted that, and nobody has ever yet taken one single step to show me that it was not so.

3567. (*Mr. Birch.*) You were referring to exchanges. As long as there was gold freely current in France it was as you say; you could sell your bill on France at a gold exchange, but immediately the country became denuded of gold you could not have sold your bill at the same exchange if the balance of trade was against France?—I have said nothing about "a gold exchange," or "the same exchange." I have repeatedly said that the exchange and consequently the price of my silver must, and did in fact, vary with the balance of trade. Can you point to any day in

that 70 years on which it was impossible to sell a bill on Paris?

3568. For example, the exchange in 1845 went up to about $2\frac{1}{2}$ per cent. against that country?—I repeat that I have said nothing about a gold exchange, a perpetual gold exchange would of course denote a perpetual price of about 60*d.* an ounce, the exchange was at 25·85 in April in that year; but I could have sold my bill all the same, and the amount of gold I should have received for my silver would have corresponded to that exchange. Accordingly the price of silver here was in that year and month and year as low as 58 $\frac{7}{8}$ *d.* In March 1854 the exchange was 24·97 $\frac{1}{2}$, and the price of silver 61 $\frac{7}{8}$ *d.* From 1872 onwards the price of silver ceased to bear any relation to the Paris exchanges.

3569. And was not that because there was a scarcity of gold at that time?—You mean the rise of the exchange was caused by there being no gold. I do not think that is a correct statement of the cause. The failure of French exports to equal the imports was the true cause. Whether those exports are produce of the year's growth, or gold which is stored produce, matters not; the stored produce, being the supplement of the other's deficiency is exported last and is therefore the apparent though not the real regulator of the exchange. The presence of gold in France protects the drawer of bills, and prevents the taker from exacting too high an exchange, but limited by that, the balance of indebtedness, the supply and demand of bills, is the regulator.

3570. (*Mr. Barbour.*) I understand you to say that so long as the exchange does not vary there cannot be a variation in the relative value of gold and silver?—As long as the exchange does not vary from the normal rate, I do not see myself how there could be any variation. I do not see how there could be a permanent variation in the price of silver. I could suppose that there can be a rise in the price of silver notwithstanding, because though the sending your silver to Paris ties you down to the receipt of a certain number of francs; yet, if there is a great demand for India in England you do not send your silver to Paris but where it would be best paid for, therefore there might be a demand for silver irrespective of the bi-metallic country. The bi-metallic country comes in as a regulator to prevent the fall in the price, but I could easily conceive that there might be a demand for India, a demand for this or that purpose, which would send it up, as it did send it up in March 1859 when the price went to 62 $\frac{3}{4}$, which was rather more than proportionate to the Paris exchange, which was 25·12 $\frac{1}{2}$. All the silver was exhausted in England. One sent to Paris to get silver, and, as I said before, collected 5 franc pieces, melted them, and sent them out.

3571. (*Sir John Lubbock.*) It can be a regulator as long as a country has got both metals, but take the gradual exhaustion of gold. As long as Switzerland could supply any gold no doubt she has a certain effect in regulating the price, and the ratio of the two metals, but when she was entirely denuded of gold and had no more gold to pay, I do not then see that having nominally a bi-metallic law she would regulate in any way the price?—It is extremely difficult for me when everybody else, quite as competent as I am to form an opinion, disagrees with me. I cannot help suspecting that there must be some flaw in my argument. I do not see it yet, nor has anybody attempted to show me how the absence of gold can prevent your sending silver to Paris and drawing on it, and selling your draft at the exchange of the day.

3572. (*The Chairman.*) I would ask you to consider the extreme case. If you can satisfy your mind that the Canton of Berne could regulate the relative prices of metal for the whole commercial world your theory is without a flaw. I think it is rather a paradoxical position to take up?—Yes; of course my answer would be that for all practical purposes, it is wholly paradoxical; only belonging to the island of Laputa, I mean to extreme theory, which has no real practical

bearing on the case of a great commercial country, still less upon a number of countries agreeing together.

3573. (*Sir John Lubbock.*) But does it matter how large or how small the country is supposing that it is denuded of gold?—Provided there is trade with that country. It is not the supply of gold in that country. So long as there are bills to be drawn upon the country in question, whether Berne or Jersey, or whatever it might be, there would be a price for silver so long as Berne or Jersey will coin your bar of silver into the money of the country (supposing it had a different money), but so long as there is a trade there must be an exchange; so long as there is an exchange you must be able to get English money for your bill. If it is not so, I wonder no one explains what will prevent it.

3574. (*Mr. Barbour.*) Assuming that the production of silver is increasing as compared with gold, and that in consequence silver is being poured into a bi-metallic country, should you admit that there would be a tendency for the gold to leave it?—Certainly.

3575. And supposing that process goes on until at last you arrive at the point at which all the gold leaves, and there is nothing left but silver, and silver is being produced still, will that silver immediately after the gold has gone out still fetch the same value in the bi-metallic country?—It will still fetch the value shown by the exchange.

3576. Will it not then turn the exchange against the bi-metallic country?—Certainly; just as the shipment thither of any other commodities would do; if other commodities have not been at the same time sent hither by France. It is all a question of balance of indebtedness. If silver flows in, and by your hypothesis we may take it as probable that it would pour in, without the shipment of a sufficient quantity of goods to balance it, the exchange will turn against France, there I am with you so far.

3577. If a bi-metallic country will accept all the silver that comes without the exchange being turned against it, it will maintain the ratio, but if there is not a sufficient export from that country then the exchange turns against it?—Certainly.

3578. And the ratio between gold and silver is destroyed?—Not the ratio, the ratio remains the same but the price in the gold-using country alters.

3579. The market price alters?—The market price in the mono-metallic country. That is always what I have said, the market price in the mono-metallic country oscillates round the point fixed by the ratio, in the bi-metallic country, that is to say, if the exchange is in favour of this country then you would get a higher price than the ratio. If in the extreme case suggested by you all the produce of the American mines, and of every other mine in the world, pours in one year upon France the exchange in all probability will turn against France. You must take it that it turns against France, the exchange (as the expression of the balance of indebtedness) being the one thing that regulates the gold price of silver here. That is what I have all along said, but I say it depends on the exchange and not in the least upon the presence of gold in the country (except so far as gold, like anything else, is an exportable commodity and enters into the balance of indebtedness), but upon the exchange.

3580. (*Mr. Courtney.*) I would put it in this way. Supposing Jersey is a bi-metallic country. Every other country in the world is simply a gold country, mono-metallic or gold. Silver comes to be produced with much greater facility, and Jersey being a place which has both gold and silver in use, the silver is taken there and gold either directly or through commodities is got in exchange for it?—Yes.

3581. That can be carried on as long as there is any gold left in Jersey?—Yes.

3582. Suppose you have reached the limit when the gold in Jersey is absolutely exhausted? Theoretically the relation between the gold and silver might still be the same in Jersey, the law might be the same?—Yes.

3583. But inasmuch as there is no gold there, prac-

tically the relation would have vanished altogether?—No.

3584. But even when one commodity has ceased to exist?—Certainly not, because the one point that you do not carry in your mind is this, that I have a right to send my bar of silver to Jersey, and they must coin it into pieces of money which bear that ratio to gold. That is what they must do.

3585. Yes, but if there is no gold there for it to bear the ratio to?—To gold; not to a particular piece of gold.

3586. Carry it a step further. Silver is still being produced in great quantities; you cannot get gold for it in Jersey at the rate of $15\frac{1}{2}$ to 1?—Or any rate at all, there is none.

3587. But people want to get rid of it elsewhere?—They send it to Jersey.

3588. They may send it to other places, Jersey cannot get gorged with silver?—Yes, your theory is that it is. You do go on sending it to Jersey because you can get it coined into shillings, or whatever may be supposed to be the money of the country. It is perfectly right so long as you have trade with Jersey, but when you have exhausted the trade, when you can get nothing from Jersey, consequently when you have no more goods to draw from Jersey, you send them no commodities.

3589. (*The Chairman.*) Why do you assume this absolute cessation of commerce with Jersey, because Jersey is bi-metallic?—Because you have brought the exchanges with Jersey to such a point by importing into Jersey more than she can pay for. After you have done that you have no trade with Jersey.

3590. Surely what would immediately happen would be that the silver would go out of Jersey?—Whither?

3591. Follow this reasoning. Silver comes in to Jersey more and more, each piece of silver therefore can buy less of Jersey commodities in Jersey, silver falls in relation to Jersey commodities, and of course it will leave Jersey and go to where it has not fallen in relation to commodities?—But the hypothesis is that all other countries are mono-metallic on gold. Silver is of no value to them.

3592. (*Mr. Courtney.*) But it has value as a commodity?—It has, but what value? It would go probably into the arts.

3593. (*Mr. Chamberlain.*) Is not the result of all this examination that the attempt to preserve this arbitrary relation between the two metals will in the event of an over production of one of them result disastrously for the country that does it?—I am not sure about the disaster. You have shown that Jersey has sold all it had at increasing prices, and has had its production greatly stimulated. The result may not be healthy, but it is only because you have taken Jersey. You have not taken equals with equals, still less have you taken superiors with inferiors. I mean to say we are now only arguing on imaginary cases, which have no practical value. They demonstrate nothing, though they exemplify the working.

3594. You would admit that it might be the case if it were done by a single country, the amount of whose transactions bear a small proportion to that of the general transactions of the world. Your argument is, if it were done by all or a sufficient number, then no such difficulty would arise?—That is exactly what I say. The point we come to is this, that a time has come when there is not an ounce of gold in Jersey, when silver still continues to pour in. Then I say, if there is still any trade in Jersey, if any man wants to remit a bill, has anything to pay to the people in Jersey, then he will buy my bill on St. Heliers.

3595. (*Sir T. Farrer.*) For how much?—For the exchange of the day whatever it is. I do not in the least say what exchange, but I say a point may come when the exchange will go extremely high. It may come that it might be 37 francs Jersey money to the 1 l. sterling, which will be the equivalent to the present price of silver or thereabouts. Of course that would happen if there is nobody who is willing to buy a bill upon Jersey wherewith to pay for commodities which

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he has had from Jersey. Then this would be the price that he would pay me, the exchange of the day. I only say, as a matter of theory, that it is the exchange that will regulate the price of silver where there is a country willing to coin silver into its own money; or the price of gold, if there is a bi-metallic country that is willing to coin gold into its own money.

3596. (*Mr. Birch.*) But Jersey would hardly serve to illustrate the case; you require a large centre. We will take France. She would coin your silver, and if you sent it there you would have the stock exchange besides commodities for investment; but you might not be able to get gold. If gold was wanted in other parts of the world, the gold might have been drawn out of France, and there would only remain the silver currency?—That would be quite true. It does not answer my point, that whatever the exchange between this country and the other country at that exchange I could get gold for my silver.

3597. (*Sir T. Farrer.*) Is not that lowering the ratio between gold and silver?—It is lowering the price of silver in other countries, which is a different thing.

3598. (*Mr. Birch.*) But you could not get gold if there was no gold in the country?—If I send under any circumstances a piece of silver to Paris to be coined into francs and you yourself have to remit a bill on Paris to pay a debt, why do not you take my bill? If you do take my bill you pay me in gold for it at the rate of exchange of the day.

3599. I pay you here in gold and hitherto you have been able to get gold in Paris. Between 1851 and 1866 the Mint of Paris coined 224,000,000 of gold, and it only coined 13,000,000 of silver, and that shows that gold went there when gold was the cheaper of the two, and silver did not go there?—But that is not the point; I have 1,000 francs to my credit in Paris; I offer a bill for 1,000 francs on the London Exchange, and I want to know why you should not take that bill if you have to pay 1,000 francs to Paris? You answer me that you pay me here in gold, and that hitherto you have been able to get gold in Paris. I do not see what that has to do with it. My point is that, as you say, you pay me here in gold, whether there is gold in Paris or no.

3600-1. (*Mr. Courtney.*) Supposing we start with what we call the conditions of equilibrium, gold and silver existing in Jersey; you can buy Chaumontel pears there at 2s. a dozen, silver fetches here 5s. an ounce. Those are the two conditions with which we will start. We go on the process which I have already explained by which silver is poured into Jersey until the gold is gradually exhausted. — Silver continues to be poured in, the price of pears goes up from 2s. a dozen until it reaches 4s. a dozen. Simultaneously the price of silver here falls from 5s. an ounce to 2s. 6d. an ounce?—Do you mean that as a consequence?

3602. Would not they go on simultaneously?—No, not of necessity. It would quite depend upon what the trade with Jersey was. If Chaumontel pears were 4s. a dozen the probability is that very much fewer Chaumontel pears would be bought.

3603. There was an equilibrium between the prices of pears and gold, 2s. a dozen for pears and 5s. an ounce for silver; that was the equilibrium. If you theoretically disturb the price of one you send a demand for the other article, and they oscillate simultaneously, or one after the other, so as to keep under natural conditions of trade the same relative price?—I think that may possibly be if you take the whole traffic of Jersey, which is only another way of stating that the exchange upon Jersey would fall.

3604. That is the point I wished to arrive at. What we should arrive at ultimately would be that prices would be double their nominal amount in Jersey?—That is very likely.

3605. And the exchange between silver and gold would have fallen one half?—Yes, it is probable that it would, but not in Jersey.

3606. Well then I should say is not what you call the maintenance of the ratio between silver and gold a mere phrase?—No, the ratio is not destroyed so long as you can get your bar of silver coined into the money of the country, whatever it is.

3607. (*The Chairman.*) I do not think we can usefully pursue this any further. The question to which we want an answer is this: What is the distinction between Jersey absolutely denuded of gold, but freely coining silver, and India which does not use gold, but freely coins silver? We admit that India coining silver does not keep the exchange straight between gold and silver, and what we want to know is why Jersey doing the same thing does keep the exchange straight? In other words what is the distinction between a silver-using country and a country that would freely coin gold if offered it, but which is practically never offered it?—I think that in such an imaginary case as you suggest there is no practical distinction.

We may leave Jersey out of the question. It was obviously an unreal example, as unreal as it would be on the opposite supposition of a gold-using Jersey standing in the face of a group of bi-metallic States, and depriving them of 600,000,000*l.* or 700,000,000*l.* of gold.

But Jersey has served our turn as an illustration of the way in which a small bi-metallic community might be deprived of its gold (or silver), might have exported all its produce, and might have nothing left wherewith to meet a flood of silver (or gold) poured into it.

I will rather take France as an instance. France denuded of gold is for the moment in the position of a silver-using, silver-coining country. She would indeed coin gold, but by your hypothesis none is offered her.

What, then, is the distinction between her and India, also a silver-using, silver coining country, coining no gold?

France coins her silver at a certain ratio to gold, 25 grammes silver corresponding to gr. 1·6129 gold, and consequently to a definite proportion of the sovereign. There is, therefore, a definite par of exchange between French silver and English gold.

India coins her silver into pieces bearing no legal relation at all to gold, and there is therefore no par of exchange between Indian silver and English gold. But so long as there is a par between French silver and English gold, Indian silver and French silver being the same, the same par must necessarily exist for both.

Therefore while France is bi-metallic the price of silver here will be at least that which corresponds to the Paris exchange, whatever may be the balance of indebtedness between England and India.

But if the bi-metallic law no longer exists in France to hold the balance, the price of silver will be governed by the balance of indebtedness between England and India or other silver using countries.

France indeed besides being, in theory, denuded of all her gold, may, in theory, be inundated with silver, until there be no takers of bills on France.

It might be indifferent then whether the holder of silver sent the metal to India or to France. It would probably be wanted by neither, but being money there, it would be a forced import into either country; and neither French bi-metallism nor anything else would keep up its price in gold-using countries beyond what the exchange between those countries, and France and India respectively would show.

But this whole discussion about the total absence of one metal from a bi-metallic country is unreal, and quite remote from the practical question before us. There is no reality in the suggestion that France would be denuded of all her gold; still less that a group of countries would be so denuded; none in the fear that she could be deluged with silver, still less in the notion that her productive power could be simultaneously destroyed and leave her no exports to set

against her imports, a notion which leaves wholly out of the account the progressive rise of prices in France, the stimulus to production there, and the rise of prices in the gold-using countries.

The practical question is, whether as things now are, when there is no real expectation of the production of hundreds of millions sterling of silver, and when it is certain that the bi-metallic law being re-established in France, silver would be again money or potential money everywhere, it would or would not be advisable to do everything in our power to bring about such a consummation?

I think it would.

3608. (*Sir T. Farrer.*) I should like to ask in addition to that, under such circumstances what is the meaning of the phrase "the ratio is maintained," what is the signification of that?—By this question, and by some words in former questions, I perceive that there is an impression that if in a bi-metallic country there is a premium on gold or silver, so that, for example, 15·7 ounces of silver should be paid for an ounce of gold at one time; and 1 ounce 3 grains of gold for 15½ ounces of silver at another; the ratio of 15½ to 1 established by law has been somehow disturbed.

This is certainly not the case, for one could at either time get either metal coined at that ratio (and no year passed without both metals being so coined in France), one could pay one's debts in either metal, and if one had borrowed 1,000 Napoleons in gold, one could discharge that debt in silver.

This mistake would not be made if people would get into their minds what were the real provisions of the French law, and not evolve out of their own imagination a provision which does not exist in it.

I must repeat that one of the three essential points of that law is, that the debtor has the liberty of paying in which metal he will; and not that the creditor has the right of demanding which he will. Were this latter the case, then indeed the law would break down, and the ratio of 15½ to 1 would be altered, if notwithstanding this right the debtor could mulct his creditor, against his will, of so many centimes in the gold 20 franc piece, or in the silver 5 franc piece. For then the right conferred by the law would have been taken away.

But where, for his own convenience, the creditor voluntarily pays the debtor so many centimes to induce him to forego a right which still exists, and on which he *ipso facto* insists, the law is *not* broken; nor can it be said that the ratio fixed by the law is in any way disturbed by a separate bargain which recognises its existence.

3609. (*The Chairman.*) Then to go to the practical deduction from this, you would regard it as only of diplomatic value to have a very large bi-metallic area in the world?—No, rather more than a diplomatic value, because I have never doubted that if you have a country like France alone acting as a bi-metallic country with a large multitude of others drawing upon it continually, then you may have that which will be an inconvenience, you may theoretically have an enormous quantity of one of the metals poured in, which, as in the case of France when it received all that quantity of gold, would raise gold prices, and banish the other metal, but the country will not feel that which Mr. Giffen once described as misery, because in point of fact it is making a great gain in one part, and if it makes a loss in others, they balance.

3610. I now want to put an extreme case before you which is sometimes raised as an objection to bi-metallism. Let us assume the best circumstances that any bi-metallist can hope for, namely, that practically the whole commercial world were joined in a common bi-metallic system at a common ratio, and let us suppose that in one of the metals enormous mines that can be very cheaply worked are discovered. Would not the result of that be that the metal which could thus be cheaply produced will be produced in very large quantities, and the total currency, gold and

silver taken together, because they are tied together by hypothesis, would depreciate?—Yes, certainly.

3611. The fact that they depreciated would cause the mines in the metal in which the discoveries were not made, which we will call gold, the less productive mines, to be unworked. The result of that would be that the more silver was poured on the market the less gold could be poured on the market, and if it be an evil to have one metal in excess, that evil would be aggravated and not diminished by the bi-metallic system, in other words the price of silver would be artificially kept up, the price of gold would be artificially lowered. By the first of those operations the production of silver would be artificially stimulated, and by the second the production of gold would be artificially checked, and the result of that would be that there would be no reason why it should ever stop until gold was entirely excluded from the productive industries of the world, and we should simply use gold as long as the gold already in existence lasted, so we should practically become a mono-metallic world using silver alone?—Of course if I must accept the hypothesis that gold would cease to be produced altogether, you must add that silver would be produced in sufficient quantities to serve for the measure of value in the world. What you suggest would no doubt happen. Whether there would be any tremendous mischief in it so happening is another matter. John Locke would have thought it the most fortunate thing that could have happened, because he thought that if one metal alone was to serve as the measure of value, silver was far the best, and for the reason, as it appeared to him, that silver was one that was produced with more regularity than gold.

3612. It is unlikely that it should happen, but if it did happen it would not be a very serious evil?—It would not be a very serious evil; and it must be borne in mind that however great the evil produced by such an influx of silver into the currency of the associated nations, it would be much greater if it poured into a single silver-using country. The Commission may measure it by the great influx of gold into England since 1853! The question could only be of practical importance if it were apprehended that the production of silver had been checked by the low price, and could be resumed in excessive quantity. I have great reason to doubt whether there is any such check to the production of silver, since silver has gone down in price; because as far as I can gather from other people's account of it, and what little I know myself upon the subject, the mines are always good enough to produce more than the present price of silver, and people do not wait, miners of all others do not wait for other years, but they go on producing, even when they are producing nothing, much more when they are producing something. We know as a matter of fact that the output of silver has largely increased of late years.

3613. (*Mr. Courtney.*) You would start beyond that point. If you made the ratio one to two you would extremely enlarge the circulation of the world, would you not?—Yes, enormously.

3614. If you took all the silver that exists and made every two ounces instead of 15½ or 18, or whatever it is now, equal to one of gold, would you not cause a tremendous rise of prices everywhere?—That is the same thing as would follow the hypothesis of the Chairman, the immense production of silver mines?—Yes, but there is the compensating action of the departure of gold in his view, and it must be gradual.

3615. (*The Chairman.*) Of course, if you made silver artificially only half as valuable as gold not a single ounce of gold would be produced?—You could not help producing it, because if you kicked a nugget you would pick it up, but no mines would be worked.

3616. (*Mr. Courtney.*) It would be produced as diamonds are produced?—Yes; only one seldom stumbles over a diamond.

3617. (*The Chairman.*) One question of a more general kind. You explained at some length in your

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evidence the other day the evils that you thought followed from the variation of exchange, and from the appreciation of the currency. Is your view that the healthy state of a currency is one which naturally expands as population and commerce expand?—Yes; when that is the case, commerce is kept in a good groove, it is shunted out of it otherwise.

3618. If the supply of the precious metals remains constant, if at the same time there is no increase of what we have called banking facilities, and at the same time population and commerce increase, of course you have an era of falling prices?—Yes.

3619. You regard that as great discouragement to enterprise?—It is an impediment to enterprise, I think.

3620. A great burden upon those who have fixed charges of long-standing debts?—It is a burden upon those who have to pay. It is a burden, I may add, upon those who are making contracts if it is to be a continuous fall.

3621. A great burden on nations which have national debts?—Certainly.

3622. And corporations which have municipal debts?—Yes, and upon mortgagors who have to pay the interest on their mortgages.

3623. There is no doubt that in all probability the commerce of the world and the population of the world must go on increasing in the future as it has in the past?—Yes.

3624. And you would, therefore, think it the duty of those who desire to put the currency on a sound basis to do what they can to make that currency elastic to meet the new requirements that are certain to come upon it?—Yes.

3625. And you are of opinion that the bi-metallic system which brings in silver to the assistance of gold in commerce is the best way of carrying out that?—Yes. When I say the best way, of course there are other ways that may help it.

3626. And for those reasons as well as in order to obtain that certainty in the ratio of exchange between silver and gold using countries, you are anxious to see some arrangement come to between the civilised nations for adopting the bi-metallic system?—That is what I want to see.

3627. Have you any view as to what the ratio ought to be?—Yes; I have a very strong view upon that. It is that inasmuch as I should desire that the matter should be made one of arrangement with other powers, and that I think it extremely desirable that an attempt should be made to do that, it seems to me unlikely that the French or German should be willing to enter into an agreement for any other ratio than that of $15\frac{1}{2}$ to 1, because that is the ratio now prevailing in Germany and in France, the ratio at which a very large quantity of coined money is current; and if it be said, as of course it would be said, "Why should we English depart from what is shown by the present price? That would seem to be the real ratio to choose." My answer to that is that the present price is the price of silver when the demand for silver is in part destroyed. The one great demand for silver was that for coinage. There is a great deal of coined silver lying in the United States Treasury that is not serving the purpose of the measure of value, and there is much in Europe that is in the same case, and there is much yet in the mines in the same case, therefore, I think that if silver were brought back to its old position either by reverting to the *status quo ante* 1873, or if it was done by a bi-metallic agreement, between the Latin Union, the United States, Germany, Holland, Belgium, and England, I think that then it would be found that $15\frac{1}{2}$ to 1 was as near the correct ratio as you could get. There never was an exact ratio, of course, because no one could possibly tell either what the amount of silver and the amount of gold existing in the world was, nor what their relative cost of production had been.

3628. Then, as I understand it, you have two reasons for preferring a ratio of $15\frac{1}{2}$ to 1, one, a diplomatic reason that it would be the easiest ratio to

induce other nations to accept; and the second, that if silver were rehabilitated in other countries where it is now excluded from the currency, as far as we can guess, $15\frac{1}{2}$ to 1 would be approximately the natural rate of exchange between it and gold?—I would say rather as near as ever it was.

3629. (Mr. Fremantle.) The adoption of the ratio $15\frac{1}{2}$ to 1 would necessitate, would it not, the re-coinage of the silver currencies of this country and of the United States and other countries too?—I will not tell you about other countries, because I cannot answer, but certainly not one single coin here. Our coins, as you know better than anybody, are tokens. The shilling, which is a token for the 20th part of 11. sterling, would remain.

3630. But in America where the silver dollar is standard coinage?—Well they are at 16 to 1. There would be a trifling difference in America, but they are, as we well know, willing to run that risk. They have already altered their ratio three times without method; that is, without considering its accordance with that adopted by other nations.

3631. (The Chairman.) You contemplate having two sets of coins current at the same time, one of a standard fineness, and the other of what I might describe as a token fineness?—No, certainly not two sets, there would be a standard coin of the realm which would be a double florin I presume, and all the rest token.

3632. (Mr. Fremantle.) Will it not be necessary therefore to call in the whole or nearly the whole of the present silver coinage of the country?—I cannot in the least imagine why. The double florin of full weight, so far as it was used at all for internal purposes, would replace gold more than tokens. There might be a few less tokens coined, but very few.

3633. (The Chairman.) Your view is that we should have three kinds of coin in existence, gold coin as it is at present, a silver token coinage as it is at present, and in addition to that, a new silver coin of standard fineness?—Certainly.

3634. And weight?—And weight, exactly the same as the French system.

3635. Under the system you propose would you have as at present all debts to be liquidated in token coinage up to 40s.?—Oh, yes, certainly.

3636. (Mr. Birch.) Not more?—That enters into quite another question, that is to say how far it would be as possible as it would be desirable to induce other nations to adopt the bi-metallic system without our doing so. That was attempted to be done in 1881, on a suggestion of the minister of the United States, a suggestion that was adopted also by the Italian Government. Their proposal was in the first place that the Bank of England should issue upon silver in accordance with the Act of 1844, that is up to one-fifth part of the total amount of bullion, which would be one-quarter part of the gold, and that the token coinage should be legal tender up to 5l.

3637. (Mr. Fremantle.) My question was whether it would not be necessary to withdraw a quantity of the present silver coinage?—I say not a shilling, except so far as the 4s. piece might be demanded for the same purposes as the tokens are. Crowns are rarely used, and so would double florins be.

3638. Then you would maintain the whole of the present token coinage and the new silver coinage besides in addition to the gold?—Yes, certainly, so far as it might be demanded.

3639. (Mr. Cohen.) The new silver coinage being an unlimited tender and the old up to 40s.?—That is the assumption. But let me say there would not really be a permanent addition, if there was a temporary addition. We coin token coins only when the public want them. As they were gradually brought in and melted they might possibly, and for a short time, slacken the demand for token coinage.

3640. (Mr. Fremantle.) That is exactly what I wanted to know. Now you say the new silver standard coinage would replace the token coinage?—In a small degree, possibly. What I understood you

to mean, and I may have been wrong there, was that the token coinage as token coinage would have to be recoined.

3641. (*Mr. Cohen.*) Would you continue to coin token coinage under the new system?—Oh, yes, certainly; the French did not do so immediately on the

passing of the law of 1803. Their subsidiary coins were francs, double francs and 50 centime pieces of 900 fine; then at a later period they reduced them to 835 fine.

3642. (*Mr. Fremantle.*) At the time of the Convention of 1865, I think?—Yes, it was in 1865.

Witness withdrew.

Adjourned.

*Mr.
H. H. Gibbs.
4 Mar. 1887.*

Sixteenth Day.

Tuesday, 26th April 1887.

PRESENT:

THE RIGHT HON. LORD HERSCHELL, the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.

MR. J. W. BIRCH.

MR. HENRY CHAPLIN, M.P.

MR. L. COURTNEY, M.P.

SIR T. FARRER, Bart.

MR. C. W. FREMANTLE, C.B.

MR. W. H. HOULDSWORTH, M.P.

SIR JOHN LUBBOCK, Bart., M.P., and

MR. GEO. H. MURRAY, *Secretary.*

Mr. HENRY HUCKS GIBBS, re-called and examined.

3643. (*Mr. Barbour.*) I think you are of opinion that the present state of the gold and silver question is a burden on the people of India, as well as on the Government of India?—Yes, I should say so.

3644. Would you like to make any remarks as to how that is the case?—I do not feel disposed to say much about that, because I have so little personal acquaintance with Indian matters. All I would say is that we know there is a considerable loss in the Indian finance on the remittances that have to be made home, and that as regards the people of India, although there may be, for the moment, an alleviation of that loss, yet somehow or another, the loss that the Government suffers must necessarily fall ultimately upon them.

3645. Have you had any experience of countries where there is an excess issue of inconvertible paper?—Yes; that is, I have knowledge of the facts. In Chili that is the present case.

3646. And what is the standard for all ordinary transactions in such countries, is it paper, or is it coin?—If the paper is inconvertible, and if, as is quite certain to be the case, it is issued in excess, then the coin will vanish; I do not mean that all the coin will leave the country, but the ordinary transactions will be carried on by means of paper and not coin; and the metal having been displaced, the paper may be considered in one sense the standard.

3647. Then I understand that in such a case, wages, fares, freights, and taxes would be ordinarily reckoned with reference to the paper money, and fixed in paper money?—Certainly.

3648. But if the debtor, instead of paying paper, was willing to pay gold or silver, the creditor would take it at a premium?—I suppose that would be matter of arrangement between the debtor and the creditor. If it suited the debtor to pay, and if it suited the creditor to receive, in metal, he would do so. Probably it would suit the debtor only if he got something by it.

3649. What I mean is this, that transactions are not entered into on a basis of coin, and payment made in paper at a discount; they are entered into with reference to paper, and if payment is made in coin you get a premium on the coin?—I do not know whether that is exactly the fact, because probably people would speak of the paper as being at a discount; but as matter of fact the coin would become a commodity which would be dealt in in terms of paper.

3650. (*Mr. Fremantle.*) Then the contracts are made in paper?—Yes, practically all transactions are regulated with reference to paper.

3651. (*Mr. Barbour.*) Some of the witnesses who have been examined before this Commission, have held

that the Bombay cotton spinner has gained in his competition with the Lancashire spinner by the fall in exchange, though they have not agreed as to the exact value of the gain. With reference to this question it has been urged that, whatever the gain may be, it would be unfair to deprive the Bombay spinner of it by altering the ratio between gold and silver; have you any remarks to make on that aspect of the question?—A question seems to arise how the change has been caused. If legislation has caused it, legislation naturally might remove it if it was for the good of the country at large that it should be removed. I may say further that if it is for the good of English commerce that it should be removed, I think it would be right that that should be done. I have heard people say that it is due to natural causes; I do not know quite what is meant by natural causes. If it is meant that a great increase, for example, of silver produced at the mines has caused the depreciation of that metal, that is a natural cause. I do not think it would have been at all necessary or likely that we should have taken any steps in that case, because nothing would have happened to England at all. Silver-using countries would have found their measure of value increased, and prices would have risen. Nothing would have happened to us. I do not think it would have awakened anybody's susceptibilities at all in this country. People in silver-using countries might have complained just as people in gold-using countries complained between 1853 and onwards when a great quantity of gold was poured in. They said, "Gold will be so frightfully depreciated that the best thing would be to give up gold altogether." Then, if the cause, the natural cause that is spoken of, is the action of Germany in demonetizing silver, I do not think that can be called a natural cause at all. It is not more natural to have gold than it is to have silver; it is not more natural to have gold or silver, than to have gold and silver as one's coin. It is a matter which has grown up partly by custom, and partly by legislation; what would have happened in that case? The silver-using countries would have found their measure of value increased by the outflow of silver from Germany, and naturally the gold-using countries would have found their measure of value decreased by the drain from them of all the gold that was wanted by Germany, but nothing of very great importance would have happened to us, excepting the fall of prices here and the rise of prices there. There was another thing that did happen, and that was the action of France, which was as little natural as could be. They chose to do away with their old double standard, which had been our old double standard before. It was purely an arbitrary action on

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their part, just as the taking of gold alone as our standard in 1816 was an arbitrary action, and what it did was not only to affect prices, it affected a much more important matter; it did away with that which had existed up to that time, the immutable par of exchange between silver and gold. Therefore, to answer your question exactly, I think that if anything happens, from whatever cause, whether it be natural or other, but much more if it be from legislative action, if anything happens which is hurtful to us, it is quite reasonable that we should remedy it without considering whether somebody else is temporarily prejudiced, because as regards the gain to the Indian producer, I think it is only a temporary gain, and as regards the loss to ourselves, and the danger to ourselves, I think it is a continuous danger. Even if it were not, even if the loss were decidedly great to India and the gain to us were great, or if the present loss to us were great and the gain to India considerable, I should prefer England to India for my part.

3652. (*The Chairman.*) When you say legislation are you referring to English legislation or the legislation of any other country?—I was referring to the legislation primarily of Germany and secondly of the Latin Union, but I may also add that English legislation was concerned too, because English legislation in 1816 made a very considerable change; and foreign legislation was based on English example and precept, as in the Bullion Report of 1810, and in the suggestions of the Chancellor of the Exchequer in 1869.

3653. (*Mr. Barbour.*) I understand you to hold the opinion that the advantage to the Bombay spinner, if there is any, is only temporary?—Only temporary, because, as I explained before, the advantage is gained in this way, that the wages that are paid, and the price of necessities of life, are paid in the depreciated currency. That is to say, that the same amount of wages is paid in depreciated currency as was paid before the currency was depreciated; and I think it would be only temporary because the natural consequence of it is that the gold value of the produce is on the road to diminish, does diminish, and continues to diminish, but has not as yet, at least as regards Chili, diminished to the same extent, though it is going on to do so.

3654. (*The Chairman.*) Then if the gain to the Bombay spinner is only temporary our loss from that cause must be only temporary too, must it not?—Our loss so far as it goes as to fall of prices certainly, but not as to the taking away of the common measure between the two countries.

3655. I was alluding to the evidence given that our trade was being diminished because of the advantage that the Bombay spinners had; so far as that cause of mischief to our trade goes if the advantage is only temporary our disadvantage must be only temporary?—Yes, certainly, with this difference that you have started the Bombay spinner with his mills, and he is quite certain to go on for a long time even though the gain that he has hitherto made be not continued.

3656. (*Mr. Birch.*) Then he would be working at a loss instead of working at a profit?—He would, but it is none the less a loss to us.

3657. (*Mr. Barbour.*) Then we have come to this, that the gain to the Bombay spinner, if there is any, is only temporary, and the loss to the English spinner, if there is any, is only temporary?—Yes.

3658. Is it not possible that, whether England acts or not, the rate of exchange might rise, and in that case, assuming it for the sake of argument, would not the reverse operation take place, and the Bombay spinner begin to lose, while the English spinner began to gain?—Certainly.

3659. Then is it your opinion that it is desirable to put an end to a state of affairs under which industries in a silver country may sometimes be temporarily protected against industries in gold countries, and on the other hand and at other times industries in gold countries may sometimes be protected against those in silver countries; and to establish

a system under which no industry shall, owing to the operation of currency laws, receive practical protection against any other industry?—Yes.

3660. The Bombay spinner is supposed to get an advantage now, and the English spinner to suffer a loss. If exchange rises it will be the reverse; Bombay will suffer a loss, and the English spinner will gain. Is it not desirable, if possible, to establish a system under which there shall be none of these fluctuations, neither loss at one time, nor gain at another, owing to the alteration of the ratio of exchange between gold and silver?—Yes, certainly desirable if it is possible to do so, that there shall be no fluctuations from that cause. From other causes there will always be fluctuations, but that cause ceases so soon as you have a fixed ratio between gold and silver.

3661. Will you refer now to Question 3611? The Chairman, who was examining you, said: "The price of silver would be artificially kept up, the price of gold would be artificially lowered, the production of silver would be artificially stimulated, and the production of gold would be artificially checked." Is the answer that you gave to him entirely satisfactory to you, or do you wish to add anything to it?—It is not entirely a satisfactory answer that I gave, because I am not sure that I fully apprehended the question. By price in what you have quoted, I presume was meant value as measured in commodities. If so, the case was rightly stated in Question 3610—the more silver was discovered and produced, the more would the two metals, silver and gold, in their proportion (that is the whole mass taken together) be depreciated as compared with the commodities they measure. That depreciation means that labour and everything else which goes to the cost of their production would rise in price, and that those mines, not of gold only, but of silver as well as gold, whose cost of production was thus increased beyond the value of the metal produced would cease to be worked. It is no doubt conceivable that the supposed new discoveries of silver would shut up all existing silver mines and all gold mines, and that a thousand years might see the end by wear and tear of the gold accumulated during the past ages of the world; but such speculations have no real relation to the practical question before us, and if that which they suggest could practically happen, it would have much more powerful and far-reaching effect upon mono-metallic States than it could upon those subject to the compensating influence of bi-metallic law. But I think that the words which you have quoted from the Chairman's question mean that while gold became difficult of production and scarce, and silver easy of production and plentiful, the maintenance of the relation of 15½ to one would be an artificial exaltation of silver, and an artificial depression of gold. If so, my answer is that, as regards the measure of value of commodities, the scarceness of the one and the abundance of the other in no wise affect it. The quantity of both together is what affects it. As an addition to that quantity the discovery of one ounce of gold is exactly the same as the discovery of 15½ ounces of silver, if that be the ratio borne by one to the other as money. Take away from them their character of money, their quality as a measure, and they would find each its own level as measured in the money of the future whatever it might be. Take away from one of them that character, and it would find its level as measured in the other according to the natural laws of supply and demand; and this is what has now in part happened to silver.

3662. Besides the effects touched on in the above question, apprehensions are sometimes expressed that a great production of one or other metal would cause great disturbance to commerce, and that these disturbances would be aggravated by bi-metallism. Do you agree with that?—No, I think that as regards the latter part of the question that is wholly erroneous. The disturbance under a bi-metallic system would be less than under a mono-metallic system. I know that Mr. Mill seems to say that under a bi-metallic law the disturbance would be greater, but I think Mr. Mill has been misunderstood. Mr. Jevons has proved

it in one way, my late colleague Mr. Hunt proved it in another, and I can prove it in a third. Let me suppose two communities, A. and B. (which may stand for the whole commercial world), each employing 10,000,000*l.* sterling as money. I will first consider them as mono-metallic; A. using gold, and B. silver. (1.) If in any year 1,000,000*l.* more gold is produced than suffices to provide for wear and tear, and the natural increase of population, the measure of value in A. is increased by 10 per cent., and prices, so far as that affects them, increase in like proportion. (2.) If in any year gold remains constant, but 1,000,000*l.* more silver is produced than is required for the objects above stated, the measure of value, and consequently the prices of commodities in B., are increased 10 per cent. (3.) If both gold and silver are produced in the same excess, prices are *pro tanto* raised 10 per cent. in both A. and B. (4.) If 1,000,000*l.* less of either metal is produced than is needed for wear and tear and increase of population the opposite result is obtained, and prices are lowered 10 per cent. in A. or B., or both as the case may be. (5.) If one metal be produced in excess and the other falls off by the same amount, 1,000,000*l.*, the same disturbance takes place. Prices rise 10 per cent. in one community and fall 10 per cent. in the other. There is no compensatory action, no direct compensatory action, I think I should add. I will now consider the two communities as bi-metallic, A. and B. using 20,000,000*l.* between them, half gold, half silver. (1.) It is obvious that in this case the excess of 1,000,000*l.* gold will increase the measure of value, and consequently prices, 5 per cent. (2.) And that the like excess of silver would have exactly the same effect, 5 per cent. (3.) While the simultaneous excess of a million of both gold and silver would cause an increase of 10 per cent. (4.) The opposite result of a fall of price of 5 per cent. in two cases, and of 10 per cent. in one, would be caused by the production being in defect instead of in excess. (5.) But in the supposed case of abnormal increase of one metal and abnormal deficiency of the other to a like amount, no disturbance whatever is caused to the bi-metallic communities. Thus, in two cases out of three, where any disturbance takes place in a bi-metallic country, it is half the amount of the disturbance which is caused in the mono-metallic country affected by the supposed excess or defect of production; and in the third case the disturbance is the same in both the mono-metallic and bi-metallic communities. But a fourth case occurs (5) in which the disturbance in the two mono-metallic communities is 10 per cent., and in the two bi-metallic communities nothing at all.

3663. (*The Chairman.*) Are you supposing the bi-metallic system to prevail in one country only, or to be universal?—I suppose it to be sufficiently universal, if I may use such a phrase, to make it secure, but that really does not touch the question here, because the only point is, what is the effect upon a bi-metallic nation, as contra-distinguished from the effect upon a mono-metallic nation.

3664. (*Mr. Chaplin.*) When you talk about a sufficient number of countries to make it secure, how many does that mean?—France and the Latin Union were in my opinion quite sufficient to make it secure; but it was not the opinion I suppose of the majority of the ruling people in France, because they stopped it; but I think it would have been sufficient. If there had been two nations, Germany and France together, *a fortiori* it would have been secure; the security would be doubled. If there were the United States as well, perhaps it would be quadrupled or quintupled, one cannot say, but the greater the number, the greater, in an increasing ratio, the improbability of their suffering any inconvenience at all.

3665. Would you say that either Germany and France, or either one of those countries and the United States, would be sufficient in your opinion to make it secure?—I believe it would.

3666. (*The Chairman.*) Do you mean then that it would not matter whether we were bi-metallic or mono-metallic?—I have great difficulty in giving a

confident answer to that question. I have said often, and I am inclined to think, that it would make no difference to us, that if we could return to the position of affairs before 1873 it would be all that we could desire; but I know that there are some in Germany who think that by all means they should leave England out of the question, because it will be very much better for them that she should be so left, and very much worse for England; and there are some here who think that it would be a great misfortune to us that we should be left out, and should remain mono-metallic, in face of a bi-metallic union. I have never supposed that it would be more than an additional bond to the Convention that we should be in.

3667. (*Mr. Houldsworth.*) In reading the very important evidence you gave last time in reference to Jersey, I found some difficulty, and I want to clear it up. Do you hold that if bi-metallism at a fixed ratio were established in one small country it would produce any effect in the world in maintaining the standard level?—I do not think that is really a practical question. It depends entirely upon the size of the commerce of the nation whether it would have any or none effect. Its coming to have none effect would be of course owing to the destruction or the exhaustion of the producing power of that country.

3668. It would answer my question if you said that in the case of such a small country as Jersey it probably would have no effect?—It would have no practical effect.

3669. (*Mr. Barbour.*) Do you think there would be any practical difficulty in coming to an agreement with foreign governments to have a fixed ratio between gold and silver?—I do not. I have good reason to think that there is none at all. The United States has been continually striving for that agreement. When I was in Paris in 1878 the Frenchmen who were concerned made no secret of their wish that the Convention should be come to. That was the case with other countries, not with all of them, some of the minor countries did not wish it. Germany has all along said that they would be perfectly willing provided we were willing. Germany has put it always upon that.

3670. Do you think that even if an agreement was made, there would be any danger of any nation breaking it?—Well, I have shown, I think, in that article in the *Fortnightly Review* how extremely difficult it would be for any nation to break through it, and if they did break through it it would be for their misfortune rather than for their gain. It is at page 493.

“Any Government might no doubt withdraw from a bi-metallic treaty if only it could be shown that it was its interest to do so. It could indeed in three ways cease to be an active member of the confederation.

“1. It could suspend cash payments and issue a forced currency. This would be no withdrawal; the machinery would be in working order and the law intact; but when once the paper had become depreciated, and had practically driven out the specie, no one would pay in specie, and no one would bring gold or silver to the Mint. Its gold and silver would have flowed over into the other nations, bi-metallic and mono-metallic, and increased the metallic circulation of the rest of the world. But it would have had no other effect on the union, inasmuch as it would have ceased to exist as a metal-using nation. It could take the same step now, whether it was bi-metallic, mono-metallic gold, or mono-metallic silver, and with precisely the same kind of effect on other nations.

“2. It could do as France has done—suspend the coinage of one of the metals. But it could not have the same inducement, because, while France stood alone, the nation in the case supposed would be one amongst many, and could have no fear of becoming the receptacle of either metal to the exclusion of the other.

“3. It could do as Germany has done, refuse bi-metallism, and proceed to the sale of one of the metals. It seems very doubtful whether the sale

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would be possible; for, on the hypothesis that the other principal nations were in the union, there would be no market. Neither silver nor gold could be sold to a bi-metallic nation, and could only be remitted without loss if the balance of trade demanded specie remittances. But, supposing that it could be done, the result would be a frightful contraction of the currency in the country so acting. It is not always that there is a war indemnity to fill the gap. These two last operations would have been real withdrawals.

Those, therefore, who think that such a union could not be maintained should, I think, eschew general assertion, and be prepared to show, step by step, what circumstances could make any particular nation discontented with it; and, step by step, the course such a nation could take to free itself from it; and, finally, and with the same detail, what would be the consequence to that nation and to the others."

3671. I suppose the strongest guarantee for the maintenance of the agreement is the fact that it would not be to the advantage of any nation to depart from it?—That is so.

3672. And I suppose the experience we have had since 1873 shows that it is not as a rule an advantage to a nation to attempt to change its standard?—Certainly not. The demonetization of silver has been a very great loss to Germany, and so must demonetization always be to any nation.

3673. And most of the nations that stopped the coinage of silver, at any rate America and France, and probably Germany, appear to have been anxious to go back again?—They have certainly shown their anxiety to go back again.

3674. (*Sir T. Farrer.*) The impression given by Mr. Strachey's recent report is that the Germans do not wish to go back?—It just depends on who the persons are who are consulted on that point. I was told by a very good authority that the agricultural part of the population in Germany were to a man anxious for the adoption of the bi-metallic standard; that the bankers and merchants were for the most part not anxious to do so. There are very considerable exceptions to that rule as regards the bankers, and in France the banking contingent is very strong in favour of the double standard.

3675. (*The Chairman.*) I understand the view that you have just presented to us to be this: assuming that the increase or diminution of the volume of the currency affects prices proportionately, then you would be safer with your bi-metallic than with your mono-metallic system?—Yes, I think I would a little vary your mode of laying it down. It is not assuming that it affects it proportionately, but admitting that it would cause a disturbance, that disturbance, whatever it may be, and whatever its effects, would be greater and more certain in mono-metallic than in bi-metallic countries.

3676. (*Mr. Barbour.*) As I understand it, whatever the disturbance may be if you have a fixed ratio between gold and silver it is spread over a wider area, and consequently is less in degree?—Yes, it is spread over the whole area, that is really what it comes to.

3677. In times of monetary crisis is it not the case that considerable sums in specie or bullion are usually transmitted from one country to another?—Yes, certainly.

3678. And do you not consider it an inconvenience and a serious disability that the difference in the standard or currency between the two countries may prevent or delay the transmission of specie or bullion between them, to be used as a means of alleviating monetary disturbance in one country or the other?—Yes, I should think it may. It is certainly an inconvenience, whether it delays I am not sure.

3679. You consider that the removal of such difference in standard or currency between the two countries would remove such a possible difficulty?—Certainly.

3680. I believe that one-fifth of the total amount of coin and bullion in the Issue Department of the Bank of England may under the Act of 1844 be held in the form of silver bullion?—Yes.

3681. In 1848 the Governor and Deputy Governor of the Bank of England gave the following evidence before the Select Committee of the House of Lords on Commercial Distress. This is what the Governor said:—"I consider silver quite as available a means for the convertibility of the note as gold. We have been limited to keeping one-fifth of our amount of bullion in silver, I think that limitation too restricted. The silver can be readily sold in the market and bank notes obtained for it. There is no merchant-dise that will sell easier than silver. By dropping a fraction in price we could get bank notes out of the market immediately." Did the evidence of the Governor and Deputy Governor of the Bank fairly represent the opinion of the Bank authorities at that time?—Yes, I should say it did, and if it will not be too much trouble to the Commission to listen I should like to read them a paper by Mr. Morris, who was then Governor, on the amount of silver to be held by the Bank in the Issue Department; sent by him to Sir Robert Peel at the time he was introducing the Bill of 1844, and laid before the Secret Committee of the House of Commons on Commercial Distress in 1848, by Mr. Morris, in the course of his examination on the 7th of March: "It would be highly inconvenient to limit the payments of the Circulation Department to sovereigns. This would give a direct encouragement to the export of that coin in preference to foreign coin and gold or silver bars, each of which description of bullion answers the purpose of export when the exchanges require it, and do not occasion the loss of the expense of coining, as sovereigns when exported and melted do. The facility of exporting silver in preference to gold, when such export is expedient, is the true remedy against the inconvenience of our standard differing from that of other countries, and unless the Circulation Department is allowed to issue against silver, that inconvenience will be real and severely felt. So long as a silver standard is not recognised, and silver coin is used only as tokens under 40s. no quantity of silver likely to be in the Bank can affect the standard value of the gold sovereign; but the sale of that silver may save useless coining of sovereigns, and answer the same purpose. Silver generally arrives from America, and latterly from China, in large amounts and at pretty regular periods. If the Bank is restricted from purchasing that silver, it will always be bought by merchants who will export it immediately, the principal demand being for the Continent. No capitalist will find it to his advantage to hold it; the variations in price seldom, if ever, compensating him for the loss of interest when the exchange is low and the price of silver high, this export acts advantageously in liquidation of payments due to foreign countries; but when the exchange is high and silver low, the silver will sell at a lower price than if the Bank were allowed to buy it, and it will be exported solely for the purpose of bringing back gold, the expense of the export of the silver and the import of the gold being an actual loss on the transaction. The practice of the Bank has been to buy bar silver at 4s. 11½d., and dollars at 4s. 9½d., which at the French mint prices is equal to buying gold at 77s. 9d. When the exchanges fall, and there is a demand for remittances to the Continent, the Bank has sold the silver, which has answered all the purposes of gold, has left a small profit to the Bank, and saved the expense of exchanging silver for gold. An unnecessary export of silver, that is, when it is not required to rectify the exchanges, causes a momentary rise in the exchange, which again falls back to its original rate so soon as the operation is ended. This momentary rise in the exchange, so long as it lasts, is prejudicial to all parties who may have to draw bills upon the Continent in payment for goods and other exports. A stock of silver in the Bank is convenient to our trade, particularly with India and China; merchants often require that metal as a remittance and would have to send to the Continent for it at a greater expense if they did

"not find a supply at the Bank. It can never suit the Bank to hold silver bullion in the Banking Department, if ever it should do so it will be an exception and not the rule. It is possible, from some unforeseen circumstance, that gold may become more valuable on the Continent than its present relative value in silver; in which case, gold might be withdrawn from the Bank and replaced by silver to a large amount. To prevent this being carried to an inconvenient extent it might be well to limit the issues against silver to one-third of the whole of the issues against bullion. Would it not be better to legislate that the issues should be made against bullion, leaving it to the responsibility of the Bank direction whether those issues should be against gold or silver?" This letter was sent to Sir Robert Peel, and was in fact incorporated by him in his speech in 1844 on this subject. He did not follow Mr. Morris' advice to limit it to one-third. He limited it, as you put in your question, to one-fifth, and I think while on this subject I might as well read a few passages from the evidence to the House of Lords on March 6th, 1848. Mr. Glyn said (Question 1832):—"I would suggest that the Bank should advance on silver bullion. (1833.) To a limited extent?—I think they might advance without any precise limitation, because they can always export it. Mr. Palmer. (994.) Silver can only be purchased when the exchanges are in favour of this country. (998.) Gold and silver are equal in their power of connecting the foreign exchanges. (1001.) It affords a marketable commodity at all times saleable, thereby preventing the export of gold, which it may be desirable to retain for the maintenance of our own currency. (1004.) In truth silver is not the only commodity with which you might act on the exchanges, but it is a commodity which, being money in every part of the world, is therefore the most direct commodity which you can possibly have for the purpose. Except as regards the United States. The United States latterly have taken gold alone. (1005.) Is not silver a legal tender, have they not in fact the old standard of this country, a double standard, but regulated in a manner which makes it more favourable for the trader to pay in gold than in silver?—Yes." Mr. Morris—Feb. 8th—" (341.) I consider that it is immaterial whether it is gold or silver. The Bank have purchased the silver because, if the Bank had not purchased the silver, it would have gone to the Continent. The principle upon which the Bank buys silver is this:—When the exchanges are high, and consequently the price of silver low, we purchase it at a price equal to buying gold at 77s. 9d. The whole of it probably went in payment of the imports of the country. (342.) The silver is no part of the medium of your circulation. You cannot pay your debt in silver, nor can you convert it into sovereigns, which are part of the legal tender of the country; and therefore, though it is a very convenient description of merchandise, it is not to be looked upon for the purpose in the same light as gold?—I consider silver quite as available a means for the convertibility of the note as gold. . . There is no merchandise that will sell easier than silver. By dropping a fraction in price we could get bank notes out of the market immediately." Another in the Commons Committee. Mr. Morris says,— (3242.) Silver bullion gives a command over gold, and over bank notes, therefore, provided we hold a moderate amount of silver bullion, I do not think it at all interferes with the power of converting notes into gold." That is, of course, all before the action of France and Germany; and I think it is rather important as showing what the view of the people was in that day; I will read that portion of the report of the Secret Committee of the House of Lords which refers to this. "The limitation of the amount of silver bullion which the Bank is entitled to hold under the Act of 1844 has been complained of by many of the witnesses whether their

opinions are favourable or adverse to the other provisions of the Act. Cases are stated in which the export of silver has been made, and may be made in future, the means of rectifying an unfavourable foreign exchange. Such is the opinion of the Governor of the Bank: 'I consider silver quite as available a means for the convertibility of the note as gold. We have been limited to keeping one-fifth of our amount of bullion in silver. I think that limitation is too restricted. The silver can be readily sold in the market, and bank notes obtained for it. There is no merchandise that will sell easier than silver. By dropping a fraction in price we could get bank notes out of the market immediately.' After Mr. Horsley Palmer had described a former operation, effectually completed by the Bank for rectifying the foreign exchanges by a remittance of silver, he was asked,—'Do you think that you have as much facility under the Act of 1844 of effecting such an operation, if it should appear desirable, as you would have if your hands were not so much tied? There is one material defect in the Act of 1844, as it has always appeared to me, in the Bank being precluded from holding more than a certain amount of silver, with reference to the gold in the Bank's possession. The bank is thereby precluded from holding a large amount of silver (it is curious that he says that), which would in times of an unfavourable exchange be equally beneficial with gold in meeting the foreign payments.' Your Lordships will bear in mind that the legal standard of this country is gold, whilst that of the Continent of Europe is silver. In times of deranged foreign exchanges it therefore seems obvious that the export of silver in preference to gold should be encouraged rather than impeded by any forced legislative restriction. This is the more important, as, from the mint regulations of the United States, an unfavourable exchange with America is equalised by the remittance of gold; a fact exemplified in the efflux of gold in 1847, when 9,000,000*l.* in gold were withdrawn for export. These consequences are well described in Mr. Cotton's evidence. 'Do you consider that there is any public advantage connected with the restrictions imposed upon the Bank by the Act of 1844 in relation to the amount of silver which it holds? I do not think there is any public advantage in that restriction. You think it might be left perfectly free to the Bank to determine the description of bullion which it should hold? I think it might. In particular states of the foreign exchanges is not the possession of a considerable amount of silver bullion a matter of very great convenience to the Bank? When silver was at such a price that it could be purchased so as to be secure of importing gold to a profit it was preferred. You think that in that respect it would be wiser and more prudent if the Bank were left unfettered with respect to its purchases of silver? I think the Bank might be left unfettered. I would state that if the drain last year had been for any place but America the silver would have gone first, and we could not have had a surplus quantity.' The Committee add the following extracts from the further evidence of Mr. Horsley Palmer and Mr. George Glyn. 'Mr. J. H. Palmer: You stated that under the Act of 1844 the proportion you have of silver to gold must be only one-fourth part of the gold, or one-fifth part of the whole amount of bullion; do you think there is any inconvenience arising from that regulation? I think there is a material inconvenience attending that regulation. Will you have the goodness to state what that inconvenience is? Silver being equally available for Continental payment as gold, and perhaps more so, it is desirable that the Bank should not be restricted in the extent alluded to in the purchase of that description of bullion, which is always marketable, and which answers every purpose of correcting the foreign exchanges. Would not an increased power of holding silver bullion in proportion to gold tend to diminish any danger of a sudden change of the

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" "foreign exchanges? It does not diminish any
" "danger from a change in the foreign exchanges
" "further than as it affords a convenient mode
" "to the Bank of rectifying them. It gives
" "them the power over an article which is market-
" "able, and which, being the currency of the whole
" "Continent, affords an equal facility with gold in
" "making the foreign payment. Do you approve
" "of that clause of the Act which restricts the Bank
" "in the purchase of silver bullion? I certainly
" "do not. I think the restriction to one-fifth is very
" "inconvenient, and practically in the spring of last
" "year was found so. Merchants from the Pacific,
" "whose returns are very much in silver bullion,
" "found when it arrived last spring that there was no
" "market for it here, and they had to send it over to
" "Paris for returns in bills of exchange, and when
" "they came back there was a difficulty in dis-
" "counting. The interval lost, which is about six
" "weeks, is a very serious thing to a mercantile house;
" "and there is another evil in it; supposing the
" "amount of bullion held in the Issue Department to
" "be in the exact proportions allowed by the Act,
" "with one-fifth silver, and supposing that 400,000l.
" "of notes go in taking the same amount of sovereigns
" "out, that immediately alters the proportions right;
" "and this reduces the circulation another 100,000l.
" "to keep up to proportion. Did you not hear of a
" "case in which a merchant with a large amount of
" "silver bullion was unable to obtain advances upon
" "it? Decidedly he could not obtain an advance
" "upon it or sell it. I could never see any reason
" "why the Bank should hold only the proportion of
" "one-fifth silver. There can be no reason why the
" "Bank should not make advances upon silver bul-
" "lion, which they can always export to get sovereigns
" "back or remittances from Paris.' In expressing
" "their entire concurrence in these opinions it is
" "scarcely necessary that the Committee should ob-
" "serve that no question of alteration of standard is
" "involved in them; nor do they countenance such
" "an alteration of the law as would render the coined
" "silver of the realm depreciated as it is, compared
" "with the mint price of silver, available, by sale, in
" "payments beyond a restricted amount." Mr. Mor-
" ris, and Mr. Prevost, and Mr. Cotton were, one may
" say, the fathers of the Act of 1844. They were
" thoroughly conversant with all its provisions. Mr.
" Glyn and Mr. Palmer, whose words I have also
" quoted, were thoroughly acquainted with the whole
" matter, but were opposed to the Act of 1844.

3682. Have you any objection to say whether the Bank now holds silver in this way?—No, they hold none.

3683. And in the present state of affairs would the Bank authorities regard the holding of silver with favour?—Certainly not; we could not hold silver at present. We could by law, but it would be indiscreet to do so. Shall I tell you what amount we have held since 1844? In 1844 the Bank held about 1,700,000l. in silver, in 1846 about 2,700,000l., in 1848 it ceased to take silver, and by 1853 (August) it held none; in 1860, by arrangement with the Bank of France, the Bank held 2,000,000l. in silver for a short time.

3684. (*The Chairman.*) Then it had ceased to hold silver, entirely independently of the change in the practice of the Lation Union, and the demonetization?—Entirely.

3685. (*Mr. Barbour.*) Would it be said at the present day that silver was as available for the convertibility of the note as gold?—No, certainly not.

3686. I suppose the objection to holding silver at the present day is due to the fact that silver fluctuates largely in value in relation to gold, and that the French mint is not open to free coinage as before at the old ratio?—That is so.

3687. I will now turn to another portion of the subject. If the balance of trade turns against a country exchange, I believe, becomes what is called unfavourable for that country?—Yes, certainly.

3688. The effect of the alteration in exchange is to make it somewhat more profitable than before to export goods from that country and slightly less profitable to import into it, and this result tends to adjust the balance of trade?—Yes, if there is no common measure.

3689. But if the countries have the same standard the alteration in exchange cannot ordinarily be carried beyond specie point?—Certainly.

3690. If an alteration in exchange up to specie point has not sufficient effect on the trade to adjust the balance, the country which is in debt would discharge its liability by a remittance of specie?—Yes.

3691. But if the two countries have not got a currency which is interchangeable the debt cannot be discharged by a remittance of specie, and in such case the alterations in exchange must proceed to whatever point may be necessary to adjust the balance between the two countries by stimulating exports and checking imports?—Yes.

3692. Would you therefore say that it is the case that international balances must be settled by commodities when there is no international money available for the purpose?—Certainly.

3693. If two merchants had numerous transactions together from time to time, and if on making up their accounts a balance were found to be due by one to the other, that balance would most conveniently be settled by the payment of money?—No doubt.

3694. If the merchants had no common money the balance could only be settled by commodities?—Yes, only by commodities of course if there is no money; or by that which might be a commodity to one but money to the other, but still it would be a commodity.

3695. That might be very inconvenient?—Yes.

3696. There might not be any commodity which the debtor could buy at the moment, except at a sacrifice, and there might not be any commodity which the creditor would be willing to accept unless at a rate which would involve great loss to the debtor?—Yes, I suppose that is the case.

3697. I suppose if balances between merchants and traders had to be settled by goods, because they could not be settled by money, that fact would give rise to much hardship, and be a great hindrance to future trade?—Yes, I suppose it would be a hindrance to future trade.

3698. I will now read you a passage from Goschen's "Foreign Exchanges" which bears on this subject. Mr. Goschen is illustrating the difficulty which a country like Russia with inconvertible paper experiences when she has to pay a balance on her trade, and exporting commodities is, for the time, practically impossible. "A Russian spinner has imported cotton and owes the amount thereof in English sovereigns to a merchant in Liverpool. He has roubles sufficient in his hands in paper money, but what steps is he to take to procure sovereigns for them? Being debarred from sending bullion, he has only two courses open, either to buy a bill on England from others who happen to have sent produce thither, and thus have a claim on an English house which he can buy and transfer to his Liverpool creditor; or to send the produce, which will sell for sovereigns, himself. Where there is a pause in exportation, as is the case during a large portion of the winter season in Russia, he would be absolutely unable to send any remittances at all, unless he could find bankers or others who might draw on England, or on some other foreign banking centre in anticipation of future exports, and would sell him the bills. But it will be apparent, that, as to price, he is entirely in their hands. If, as is often the case, such Russians as are indebted to foreigners are bound at any cost to place funds in English money into the hands of their creditors by a given day, there would be no limit to the price which might be exacted from them—in other words no limit to the fluctuations in the exchange. The relative value of their paper roubles to bullion

" seems not to enter into the question at all. Supply and demand alone determine the price. And if the exports of such a country do not equal the imports (and this is by far the most general case) so that the demand for bills to pay for the imports exceeds the quantities of bills which is supplied by the exports, the balance which the country has to pay can only be settled by an enormous sacrifice, in fact, cannot be settled at all except by a cessation or diminution of imports, or by a foreign loan, the latter being only an expedient to gain time and an adjournment of the payment of the balance due." The case quoted by Mr. Goschen is an extreme one, but do you think that something analogous to what Mr. Goschen here describes may occasionally occur in the case of England and India?—Yes, it seems rather an extreme case, but I suppose it would happen in other countries, India, and elsewhere, so far as the circumstances were the same.

3699. (*Mr. Courtney.*) Does the difficulty pointed out by Mr. Goschen in that passage turn at all upon the use of the paper rouble? Does it not turn on the interruption of commerce during the winter months? The ultimate difficulty in the case is the interruption of commerce in winter, which compels the merchant to abstain from sending commodities for commodities, and he therefore has to go to the bank, and he is in the hands of the banker?—No, not so, because if he has a right to demand gold from his banker, he gets gold and sends it. He waits no doubt, but he sends ultimately the gold with which he can pay his English creditor. That is how it strikes me.

3700. (*The Chairman.*) Still applying this theory to the case of India, must not the matter depend upon the banking facilities that would be afforded there, and the amount of banking competition?—Certainly it would. The banking competition would alleviate the matter very considerably to him, but still he would be in the hands of the banker. There might probably be some individual bankers who would help him out of his trouble with the other.

3701. (*Sir John Lubbock.*) A banker would not have an inexhaustible source; he would only help him to a certain extent?—Certainly.

3702. (*Mr. Barbour.*) If the balance of trade turns against India at a time when exports cannot profitably or readily be increased, it is not practicable for India to remit specie to England, and consequently exchange must go on falling until exports are either thrown on an unfavourable home market, or the import trade is suddenly checked to the loss and inconvenience of all concerned?—I should think so. That seems to be right.

3703. (*The Chairman.*) Will you tell me what you mean by the balance of trade at any time? Do you mean transactions that have gone on for a certain time, or a balance of trade to be considered day by day?—I should say "balance of trade" is not a good expression. A better expression is "balance of indebtedness" between the two countries. Imagine the two countries to be two men having transactions with one another, and remitting the one to the other either gold or silver, or produce or manufactures of any kind, the "balance of indebtedness" is that which at any moment may be found to exist between them.

3704. (*Mr. Barbour.*) In practice, India would very seldom require to actually remit specie to England, but she may suffer from being forced to take silver at a time when, from other causes, the balance of trade is turning against her, and when silver would not be imported if there was a market for it as currency elsewhere?—I suppose that is so, but I do not feel quite certain about it. I think it is so.

3705. (*The Chairman.*) Supposing the balance of indebtedness on a particular day were against India, she would not remit the rupee at its artificial value in relation to gold, she would not necessarily transmit silver, as the next day the indebtedness might be the other way?—Oh, Certainly.

3706. It must be a continuing indebtedness, or an anticipated continuing indebtedness, must it not?—It would be shown, as by an index, by the rate of exchange on bills on that particular day. She would not necessarily remit silver certainly, but somebody would wish to remit bills, and the differing cost of the bills would show the fluctuating state of the indebtedness of the two countries, not with India only but with any country.

3707. (*Mr. Barbour.*) And the exchange would not be carried beyond specie point if they had the same standard?—Certainly.

3708. (*Mr. Birch.*) And the expense of bringing it over?—Specie point includes the expenses; Mr. Barbour's question referred not to par point, but to the specie point.

3709. (*Mr. Barbour.*) Is it your opinion that the want of a fixed specie point between England and India tends to cause panic in the Indian Exchange? If there were a constant ratio between gold and silver in Europe, merchants and others would know that however great the difficulty of making remittances might be for a time, exchange would soon be regulated by the cost of transmitting specie, and they would have no alarm about the future?—Yes, I do not like to commit myself about the question as to whether it would cause panic or not, but certainly a country can always deal more satisfactorily with one where there is a point below or above which the exchange cannot go.

3710. I suppose you know there have been panics in the exchange market in late years?—Oh, certainly. At this very moment, as I am told, there is a kind of panic, the banks will not sell forward exchange at all.

3711. If there was a fixed par of exchange between gold and silver the ground for alarm as regards the future would be very much removed?—Certainly, there is no question about that.

3712. But as matters now stand, when a fall takes place the merchants cannot conjecture at what rate the exchange will ultimately settle, and consequently they are subject to and act under the influence of panic?—Yes.

3713. Do you consider that these difficulties would be obviated or greatly mitigated if England and India had a common money available for international purposes?—Yes, I do.

3714. We have seen that in the case of England and India the balance of indebtedness must be settled by commodities, and cannot be settled by money?—Is not this to some extent a return to barter, and attended with many of the inconveniences of barter?—Yes, certainly when you pay with commodities instead of paying with money you have come back to a kind of barter; it is not quite the same, but it is a sort of barter.

3715. So long as there is no constant ratio between gold and silver, and no international money available for the settlement of balances between gold and silver countries, is it your opinion that a country with a silver standard has a material advantage over a country with a gold standard in trading and dealing with other countries that employ the silver standard?—Yes, I think the evidence shows that to be the case.

3716. I believe you have given some attention to the history of the use of gold and silver as money in modern Europe?—Yes, certainly.

3717. Is it the fact that in very early times silver was practically the sole standard, the few gold pieces that circulated being taken at their market value?—Yes.

3718. And when gold began to be more largely used as money, was it used as the sole standard, or was it used as legal tender at a fixed ratio to silver?—At a fixed ratio generally.

3719. As far as you are aware it was always the case?—It was always the case.

3720. I believe that all countries in Europe did not use the same ratio, but that the ratio varied slightly in different countries, and that even in the

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same country the ratio was sometimes changed?—Yes, and the difference of ratio between different countries was really the cause of the fluctuations of the currency in each country; that is to say, the causes of the changes in the circulation.

3721. (*Mr. Courtney.*) How is this ratio determined?—I suppose by law.

3722. But the universal medium of exchange and payment was silver?—Mostly silver I think, but then there were gold coins, and a decree was made by the Government that the gold coin should be current for so many shillings if it were in England, or so many livres if it were in France; but whether it was obeyed or not is another thing.

3723. But did these gold coins form a considerable proportion of the currency?—That I cannot answer. I should say they did not.

3724-5. (*Mr. Barbour.*) But so far as your information goes, gold was always effectively linked to silver up to 1873?—Yes.

3726. And is it your opinion that its being linked to silver in this way materially affected or influenced its purchasing power?—I think it did.

3727. So that even when England adopted the gold mono-metallic standard the purchasing power of that standard was materially affected or influenced by the ratio between gold and silver prevailing in France and other countries?—Certainly, the two metals were practically linked together there in England as elsewhere although silver was not legal tender.

3728. Is it not the case that since 1873 the purchasing power of gold has ceased to be affected or influenced by the existence of an effective fixed legal ratio between gold and silver?—Yes.

3729. And would you say that the use of gold since 1873 as a monetary standard on an extensive scale unregulated by its being linked to silver is an experiment, the results of which cannot be foretold from any experience we have had in the past?—Certainly, it is entirely a new state of things. We have never had the experience before of a standard such as we now have, a single mono-metallic standard with no connecting link between it and silver the standard of other countries. It is a new experiment, and a very unfortunate one, entered into in 1873. Sir Robert Peel's Act in 1816 was also an experiment, and it was only successful because it was safeguarded by the French Monetary Law.

3730. (*Mr. Birch.*) I understood you the other day to assert and desire to prove that given an important commercial and banking centre, that centre can work the bi-metallic system; but you would not admit that Jersey or the Isle of Wight has a banking or commercial position which would in any way enable these islands to work the system in the same way that France worked it for years?—Certainly not.

3731. Theories in treating of currency require that the example should be such as can be recognised by the light of experience?—Oh yes, certainly.

3732. You said that there never had been any difference in the value of gold and silver in France, and that it was only a question of a small agio at times which travellers paid for the convenience of having either coin?—No, I do not say precisely that. I say that what we observed in France ourselves was chiefly as it affected travellers as they were passing through; but as I stated in one of my answers, the extent of the agio altered the specie point. I made my statement with that qualification.

3733. Now agio simply means a premium on one or the other metal. It may not affect the interior trade operations of the country itself, as one coin has the same purchasing power as the other in respect of commodities, but it has an effect in international operations, and therefore in the value of the metals when one or the other becomes scarce, and is required for export—gold to England; silver to the East. You said that if you had money in Paris you could always get gold for it. Of course you can get gold here, for our standard is gold, but supposing the balance of our cash account with France to be in our

favour, and gold in France to be scarce, it would command a premium, and this premium would be shown in the exchange, in the following manner: We will suppose that you have 100,000 francs with your agent in Paris which you desire to transfer to England. If I were certain that your cheque in Paris would be paid in gold I would give you the exchange of 25'30 to-day, and would pay you in London 3,952*l.* 19*s.* 3*d.*, but as under present circumstances your cheque would be paid in bank notes or silver, I could only give you the exchange of 25'42½, and I should only pay you 3,933*l.* 2*s.* 8*d.*, which would be equivalent to a premium in Paris of half per cent. on gold. Silver, bank notes, and gold are equally available for all payments in France, but bank notes and silver will not serve to pay in England the cash balance due to this country, and therefore a premium is paid for gold, which as you are probably aware is being exported, although in small amounts, to this country at the present moment?—That is perfectly right.

3734. Can you give the Commission any idea of what in your opinion would be the immediate effect of the free coinage of silver as regards England?—I presume the Commission will accept the fact as stated by Hume in his essay on money, that an increase of the measure of value enhances the price of commodities. He says, "It seems a maxim almost self-evident that the prices of everything depend on the proportion between commodities and money, and that any considerable alteration of either has the same effect, either heightening or lowering the price. Increase the commodities, they become cheaper, increase the money they become dearer; as on the other hand, a diminution of the former and that of the latter have contrary tendencies." If then the linking together of gold and silver as the measure of value will increase the quantity of that measure, no doubt a rise of prices will follow, not necessarily to an absolutely higher level than that at which they stand now, because other circumstances may affect commodities, but to a higher level than they would otherwise attain. What then would the increase be?—Nothing very considerable at first. In France and the Latin Union, and in Germany also, the coined silver is legal tender at its full nominal value. So also in the United States, so far as it is in circulation in specie or in certificates. In India all the silver coined and coinable has very nearly the full purchasing power of country produce which it had before, so that there would be no great addition to the measure of value on the score of these admixtures with the existing gold money. But the unissued dollars in the United States Treasury would come forth with the purchasing power indicated by the ratio, and would swell the quantity of purchasing metal. So also the uncoined silver held in Europe, which now would only sell for 46*d.* an ounce, would obtain a greater purchasing power, the open mints of the bi-metallic countries receiving it and all the annual produce of the mines, for coinage. If it be true that some silver mines have been closed because of the low price of the produce—a statement which must be received with much caution—their produce would be a further addition to the mass of the world's measure of value, which thus being somewhat larger than it was in comparison with the existing mass of commodities, would involve an enhancement of prices. So far as the mass of silver would gain in present purchasing power, the total mass of silver and gold together would lose, so that the effect on England would be a slight diminution of the aggregate value of the amount of gold in the country. But the gain would be, that the future supply of gold and silver together would better suffice to fill up the gap caused by wear and tear and loss, and to correspond to the new demands of increasing population in the countries adopting the bi-metallic standard, than would gold alone in the gold using countries, or silver in the silver-using countries, and that we might therefore expect greater stability in the relation of money to commodities. Here I have only spoken of the effect upon prices,

but the other effect of the bi-metallic standard, that of establishing a par of exchange between gold and silver, has a somewhat different bearing.

3735. But what I wanted was the immediate effect in England. What would be the immediate effect of our opening our mint to the free coinage of silver?—I think I have shown that there would be no very great difference, but the immediate effect would be that silver would return more or less to its price before 1873. I think that that would be instant. I cannot see how it could be otherwise for the reason that I have given, unless there should be any great change in the state of indebtedness between England and France. Supposing the French mint was open or the English mint was opened under like conditions, immediately the price of silver would rise to about what it was before, but the effect upon prices generally, that is prices of commodities, would be only that which would be produced by the enlargement, no very great enlargement, the enlargement of the general measure of value by the addition of these portions of the general mass of silver that now are not money.

3736. For the present moment I am not referring particularly to the question of price, I am referring to the great volume of silver which exists in America, and which as you are aware is perfectly usable there, but they do not like to use it. Supposing our mint to be open and a very large amount of silver to come over here and be coined into English dollars or whatever it might be, would not that affect immediately our stock of gold, as they prefer gold?—In the first place I must point out that the only silver that is so affected is that lying in the vaults of the Treasury, represented by certificates in the possession of the Treasury. That represented by certificates in the hands of the public is in circulation, just as the gold in our banks is in circulation by means of bank notes. Certificates are not so freely accepted, but they are in circulation. Another thing I would say. You assume that they prefer gold very much. I think they, or some of them, prefer gold so long as there is no bi-metallic arrangement. They are anxious to have a bi-metallic arrangement. Those, therefore, who prefer gold only prefer it now while such an arrangement does not exist; but I will assume for the purpose of your argument that they do prefer gold, and that they would wish to buy it. Then the result would be just what you say, that they could not make us take their silver, for rather they could not make us give gold for it. They could make us take their silver, because it would be what may be called a forced import inasmuch as, by the hypothesis, it is money, but they could not demand gold for it, and therefore, if they really desired to have it, the probability is that they would give us ultimately a premium for it; that is to say, that we should get the advantage of having, say, 16 ounces of silver for one of gold, when 15½ will buy our commodities. That is what would be the case, but there could be no very great amount.

3737. If they gave us their silver at the rate of 16½ to one, and we should be entitled to return it to them at the rate of 15½ to one, it would be rather profitable to us?—Yes, supposing a man sent a quantity of silver here and did get gold for it, which he might do by paying an agio, it would be quite open to the Englishman at once to make a remittance of silver, and restore the thing to what it was before.

3738. And supposing the mints of the world generally were open to the coinage at the market ratio of to-day do you think any effect at all would follow?—None; I think that what you have described is a game that would not be found worth playing.

3739. Evidently your idea would be to raise prices by adding to the currency?—No, that is not so. My desire is to restore the monetary standard of England at least to the position which it occupied before 1873. It was then by law a gold standard, and gold was our only legal tender; but it was, in fact, a gold standard with an immutable par of exchange between it and

the standard of silver-using countries. That is to say, that 15½ ounces of silver having in France the same paying and purchasing power as one ounce of gold, and one ounce of gold here being 3*l.* 17*s.* 10½*d.*, it follows that 15½ ounces of silver were equal to that sum in sterling; or in other words that one ounce of silver was equal to a little more than 60*d.* The effect of a return to that condition of things, or to the older condition which existed prior to 1816, would, no doubt, be that trade with silver-using countries would be placed on a firmer footing, and a subsidiary effect would be that there would be some rise in prices, and that a stop would be put, once for all, to the fluctuations of price springing from this particular source. My impression upon the whole matter is that it is better for commerce that causes of instability should be, as far as possible, removed, inasmuch as trade prospers more when prices are more or less stable. Trade prospers more when prices are somewhat flattering to trade than when they are depressing to trade. My main object is to restore the par of exchange between gold and silver. The consequential effect of whatever enlargement of the volume of the currency might ensue, would be, as history will show you, a tendency to improvement in the condition of trade. The mere increase is not large, but an increasing volume of currency corresponding to the increase of population and the increase of production of commodities has been favourable to trade rather than the contrary.

3740. (*Mr. Barbour.*) Do you mean that the ideal we should aim at is a good monetary standard?—The better, the more stable the monetary standard, the better for trade. The whole object of Lord Liverpool in his treatise (beyond that of regulating coins, which was the main thing that he desired) was that there should be a unity of standard between people having commerce one with another between London and York, consequently I say it follows from that, that there ought to be an unity of standard, so far as it is practicable, between London and New York or between London and any other part of the world. Everybody is willing to allow this, and would perhaps desire that standard to be gold or silver. If you can satisfy me that it would not be productive of evil to have a single mono-metallic standard all over the commercial world, I should say theoretically that is the best, only that as I have shown before the single metal is more liable to fluctuations of production than the two metals.

3741. (*Mr. Birch.*) The value of money is increased in an inverse ratio to its quantity, the supply of commodities remaining the same?—Yes.

3742. But a large increase of the quantity of commodities must of course make prices fall?—Yes, certainly.

3743. The raising of prices would affect the labouring classes more than any other?—I do not think it would. I think, as I said in my last examination, the working classes are the last of all to feel any change; for example, now the wage fund has diminished, but the wages of particular wage-earners have not, we are told, fallen in nearly the same proportion.

3744. (*The Chairman.*) Do you mean to state that as generally affecting all wage earners, that as a rule, the wages have not fallen?—I say in many cases they have not fallen, but the wage fund has diminished, fewer people are employed, therefore you may say wages have fallen in the aggregate, and in many instances they have fallen in individual cases.

3745. (*Mr. Courtney.*) Wages are last to be moved whether they rise or fall?—Yes; and when they are moved, it is first shown in the rise or fall of the numbers employed, not in the wages of individual workmen.

3746. (*Mr. Birch.*) France and Germany must have suffered a good deal more than England if the suspension of the coinage of silver has curtailed the currency; for England maintains the same course as she has followed for the past 70 years, and her banking system has economised currency to an

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enormous extent?—Your question seems to lose sight of the distinction between the idea of currency and the idea of measure of value. The currency in France and Germany has been very little altered, for silver is still current. The contraction of the measure of value must have affected them as it has us. It appears to me, that in saying that England maintains the same course as she has followed for the past 70 years, you grasp the shadow instead of the substance. For 70 years from 1803 England possessed an excellent monetary system, resting on the foundation of practical unity of money in all the world. The acts of 1873 removed the corner stone of that foundation, and totally destroyed that continuity which you imagine to be still existing. As to economy of currency, there has been hardly any since 1873.

3747. There is an enormous increase of banking facilities, banks have increased?—Yes, but I doubt whether that has made much difference. Bank notes greatly economize gold, and clearing houses greatly economize bank notes, but the only thing that has happened of late to touch currency and the employment of gold is the use of postal orders, of which a very large quantity are in use; but they only economise gold or notes so far as they remain in circulation and pass from hand to hand. Their chief use is to enable small remittances which before could not be made.

3748. (*The Chairman.*) But would not the fact of a very large number of branch banks going into small towns and villages, which would make cheques much more used in place of money, would not that be an economy?—Certainly, if cheques were used in place of money, it would.

3749. But has not that been the case of late years? You will find two or three banks in almost villages now where you saw nothing of them a few years ago?—But all that requires provision of money for the meeting of cheques, and the postal notes really require a very large provision of gold in all the post-offices which was not required before.

3750. (*Mr. Courtney.*) You would not say that the multiplication of banks or rather the multiplication of cheques causes an increase in the use of gold?—No, what I meant to say was that our using more cheques requires the banks on which they are drawn to keep a greater store of notes and gold; I meant to say that it is not all diminution of the need for currency. It is very difficult to say what has been the economy of gold produced by banking expedients. Cheques have increased no doubt, but the fiduciary issues of the country have diminished, the Bank of England only taking up a portion of the lapsed issues of the country banks, and those banks themselves not issuing nearly to the extent allowed by law, but presumably supplying the void by Bank of England notes issued in gold. I think also that inland bills have greatly diminished in number, and that their place has been filled by cheques.

3751. It may be necessary for the bank to keep one tenth of what private persons would be circulating at their hand?—Well, I cannot answer for the fraction. It depends upon the balance the bankers have to pay to one another at the end of their clearances, a 5*l.* note might balance 500,000*l.*

3752. (*Sir T. Farrer.*) When you say that there have been no economies in the use of gold, do you confine that to this country or do you extend it to the foreign countries?—I speak only of the years since 1873. In foreign countries there has been economy in the use of gold, that is to say, that the use of cheques has much increased in France. In other countries I cannot say whether it is or not. It is now the case that an Englishman's cheque will be taken if he is travelling abroad, but that only takes the place of ordinary bills of exchange.

3753. The foreign practice is as important for our purpose as the English practice is it not?—Certainly, only that we have not I think much evidence about the foreign practice, and we certainly know that it has not got to anything like the point of perfection that

our practice has. Whatever may be the economy due to banking expedients, it can be as nothing compared to the extension of the use of gold as money since 1873.

3754. (*Mr. Barbour.*) Are you aware whether the reserve of gold in the banks of this country has actually increased during the last 10 or 15 years. If there has been a great economy of gold, other things being equal, one would expect the reserves to increase?—I do not think you could exactly expect that, because the reserve is affected by so many things.

3755. (*Mr. Birch.*) There is practically only one reserve?—There is practically only one reserve.

3756. (*Mr. Barbour.*) Is it larger than it was 10 or 15 years ago?—It is very difficult to make a useful comparison. The banking reserve varies from day to day, and is governed by causes apart from this question. It is now 15,500,000*l.* In 1877 at the same date, it was 14,441,000*l.*; in 1871, 17,861,000*l.* The average in the six months, March–August, 1886, was 12,600,000*l.*; in 1877, 13,000,000*l.*; in 1871, 17,861,000*l.* The gold on the same date was 24,500,000*l.*; in 1877, 25,700,000*l.*; in 1871, 22,900,000*l.* The average for that half year, in 1877, was 26,200,000*l.*; in 1871, 24,600,000*l.*; last year it was for March–August half year 21,200,000*l.*; for September–February 1877, 21,000,000*l.* The figures are roughly stated. I think the other bankers may keep more in their tills now than they used to do, chiefly because there has been such an outcry against them for not doing it. That is only a conjecture of mine; I have no knowledge on the subject.

3757. (*Mr. Courtney.*) The issues of those country bankers who are entitled to issue notes of their own, do you know how they stand with respect to their limits?—They are very much below their limit.

3758. Would not that point to a reasonable cause of the diminution also of their reserves in cash?—I suppose it would. They use more Bank of England notes than they did, and for these, of course, they need no cash reserve.

3759. (*Mr. Chaplin.*) I think you said just now that, although it was not your object, one effect of adopting the bi-metallic system would be to raise the price of all commodities generally?—Would be not of necessity to make the price of all commodities higher than it otherwise was, but to raise it *pro tanto*. That is to say, other circumstances might combine to keep them low, or even to lower them.

3760. Other things being equal, that would be one general effect?—I must believe that it would, if I believe that the scarcity of the measure of value, compared with the commodities it has to measure, has lowered prices. Some people, I observe, use the mutually destructive arguments (1) that gold is not scarce, and that there is no consequent fall of prices, (2) that we must beware of augmenting the measure of value lest prices should rise.

3761. Now the chief commodity that a working man has to dispose of is his labour?—Yes.

3762. Then I presume on the same principle the price of that commodity would be increased?—Ultimately.

3763. In other words one effect of it probably would be to raise wages?—I think so.

3764. (*Mr. Courtney.*) Not real wages?—No, not real wages; because commodities also, the means of life, might rise.

3765. (*Mr. Chaplin.*) But in all probability the labourer would receive an actual gain, an improvement in the actual wages that he received?—Yes.

3766. (*Mr. Houldsworth.*) Supposing the appreciation of gold has not affected his wages in lowering them, and that this bi-metallic law came into operation what would you say then?—I think that the probable effect would be that the old impetus that was given to all commodities would ultimately reach him, and that his wages might even go still lower, notwithstanding the effect of the increase of the measure of value; then

would begin the effect upon all others, and he would be raised again.

3767. (*The Chairman.*) But assuming all other things to remain the same everything would be raised equally?—All commodities.

3768. Then supposing all other elements to be constant, the wages would be raised, and everything else would be raised, so that of course he would be no better off than he was before, and inasmuch as he would be the last to get his wages raised, would he not be worse off than before?—No, not necessarily, because, though the commodities *en gros* would rise, with the wages I put retail commodities also, and the necessities of life; I mean that there is a difference between the prices of the seller of corn and the miller, the miller and the baker. The seller of loaves does not raise his prices in the same proportion, nor at the same time, as the seller of flour; nor does the seller of flour in the same proportion, nor at the same time, as the seller of wheat; but of course it all equalizes itself.

3769. Is not that rather less the case than it was, that distinction between the alteration of price in the wholesale commodities, and its being felt by the working classes since the introduction of co-operative stores?—I suppose it may, from one cause or another; I think the action is much more rapid than it used to be.

3770. (*Mr. Barbour.*) A good monetary standard is an advantage to a country, both as regards production and trade, and tends to increased prosperity?—I think so. It gives the country with a good monetary standard more profits than are made in a country with a bad one.

3771. And the working man, I presume, like everybody else, would share in that prosperity?—There would be more funds to pay him out of.

3772. (*Mr. Chaplin.*) I have arrived at this point that one probable effect of adopting this system would be to raise the wages of labourers generally?—Ultimately.

3773. The question whether that would constitute a real gain to him or not is another question?—I think the general prosperity would benefit the labourer as well as other people.

3774. Then I understand that the owners of all kinds of commodities, of every species of commodity, would gain by the adoption of this system?—Yes.

3775. They would be in a better position than they are?—By placing the commerce of the country in every point on a better footing.

3776. Now what would be the effect on the owners of gold or of securities which are bound to be paid in gold?—The effect on the owners of gold would certainly be a little against them, slightly against those who live upon fixed payments. What somebody described, Mr. Grenfell I think, as a thousand miles of old maids, that is those who are living upon Consols, are those who would be affected. The 3½. that they receive upon Consols may produce a little more now than they would then, very little, because as I say, it has not reached in a great extent the necessities of life.

3777. Then does it not to some extent become a question between the interests of the owners of gold or securities which are bound to be paid in gold on the one hand, and the interests of owners of all other commodities on the other?—Yes; between owners of fixed incomes and those who have to work for their maintenance and increase of their incomes; and, in some degree, between debtor and creditor.

3778. I want to ask you one or two questions about the agricultural interest. Is it your opinion that that interest is injuriously affected by the present state of things?—Very much so.

3779. And how does that injury arise?—It arises from the stimulus that is given to foreign producers who are working on a depreciated currency, not necessarily that they are making great profits, though in many cases they are making profits, but the stimulus that is given to production which enables them to send

their corn here at a cheaper rate. That is one of the causes. The other is the general fall in prices which affects them like other people; some of them have to pay mortgage interest, some to pay fixed rents on lease, the farmers having to pay rents on an old basis, and to sell the produce of their farms on a new.

3780. Do you consider that the corn growing industry is the branch of agriculture that is chiefly injured at the present time?—I suppose it is.

3781. I gather from you that the present system then acts like a bounty on wheat exported from India to England?—Yes, what amount of bounty I will not venture to say.

3782. Then I suppose that it acts upon all other commodities that are exported from India to England which are also produced in this country in the same way?—Yes.

3783. What is the effect upon commodities exported from England to India? Does it act like a protective duty in India?—I never did export any myself, and I feel diffident about answering questions as to the trade between England and India, except upon trade principles. I think you will probably have before you somebody who can answer that better than I could.

3784. But you are clear upon this, that it acts like an export bounty on commodities exported from India to England, and to that extent the English producer is injured by it?—Yes; also that the Eastern manufacturer is able to interfere with the Lancashire trade in dealing with other silver-using countries. The operation is different; the exports to England being stimulated by the depreciation, the exporter to silver-using countries being free from the risk of a sudden fall in the value of the money for which his goods are sold.

3785. Then as a remedy to that state of things you recommended "the adoption of the bi-metallic law"?—Yes, the French bi-metallic law, which was the English bi-metallic law with some variation before the suspension of cash payments.

3786. I understand you to say the present difficulty is owing not to natural causes but entirely to legislation?—To foreign legislation entirely.

3787. Beginning in 1873?—Yes.

3788. Did I understand that you would be satisfied to go back to the state of things which prevailed before 1873 if that were possible?—Yes, I think certainly, and I think also that the Frenchmen have repented of their repentance. They altered their law in 1874, and I think they are sorry for it, but it is a very difficult thing to retrace one's steps, more particularly if you have no one to stand by you while you do it.

3789. In fact what you are asking then, or what those whose interests you represent are asking is nothing new?—Nothing new at all.

3790. You merely wish to revert to the old state of things?—I should be content to revert to the old state of things.

3791. You see no difficulty in getting other nations to do this?—I think there is none in conjunction with England. There would be considerable difficulty in getting Germany to move without England, and I think France also without Germany. Whether the United States will ultimately take the bull by the horns I cannot say.

3792. But assuming that England was willing to take the first step there would be no difficulty in your opinion with regard to other nations?—None at all.

3793. But in order to induce them to do so is it absolutely necessary that England should make the first move?—A move, whether the first move of promising to join them is another thing. I think I said in my former examination that something short of our absolutely adopting the bi-metallic law might be sufficient to satisfy other nations, because in 1881 there was a certain willingness expressed to act if England would make some concessions.

3794. (*Mr. Courtney.*) You said just now in answer to a question of Mr. Chaplin's that the bi-metallic

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proposal was to go back to what had existed?—
Yes.

3795. As far as England was concerned it is going back 70 years?—Yes, if you mean our adoption of bi-metallism. If you mean procuring a return to that system on the part of others, while we remain wholly or partially aloof, it is going back 14 years, during all which time our 70 years' condition has been greatly impaired.

3796. During which period there have been innumerable contracts now existing, created;—Now existing, I do not know.

3797. Are there many contracts of debtor and creditor now existing which date before 1817?—Well, I should have thought there were not.

3798. Almost every operative contract of the present day is later than that?—I should think so.

3799. It came into operation under the mono-metallic law?—Under the mono-metallic law, yes.

3800. Now you said in answer to Mr. Chaplin, that the change would be beneficial to debtors but injurious to creditors?—Yes, there would be no doubt some theoretical injury to creditors, inasmuch as by the hypothesis the gold that the creditor has a right to receive would not purchase him quite so many commodities as it did before, but it would be for the benefit of creditors also, inasmuch as it would be for the benefit of the country and its commerce.

3801. Yes, but in respect to the relations established by contract, all of which are subsequent to the creation of the mono-metallic law, the change would be for the benefit of debtors and to the injury of creditors?—Yes, I think it would, in theory. In practice you would find it difficult to assess the damage: the advantage to the producer would be great, the effect on the creditor very small.

3802. Is it not a very serious thing in your opinion to suggest a change of law which would operate to alter contracts in that way?—Well, the contracts have been altered without our action very considerably since 1873 for the benefit of creditors and for the harm of debtors.

3803. Not by any action of England?—No, but by legislative action.

3804. Well assuming it to be such, it may have been altered by natural causes also?—Yes. Of course I should not advocate interference on the score of natural causes.

3805. It is a matter of dispute how far the contract which exists, which came into operation under the mono-metallic law, was made with reference to all kinds of changes that might happen in the future independently of the action of our own legislature?—Yes. But I would defend our commerce and our people against the consequences of adverse foreign legislation, even though the doing so deprived some portion of the people of some small advantage which that legislation had given them at the expense of their neighbours.

3806. And you propose that our legislature should alter the character of contracts to the injury of creditors on account of something which may have been done outside of England?—I would not say on account of something that has been done, but because we see that the action of foreign governments upon the trade and commerce of this country has been prejudicial, and we wish in the interest of trade and commerce, therefore in the interest of the whole country, to remedy that; and when you say an injustice is done, injustice is one thing and harm is another. Injustice was done in 1816, very great and instant injustice was done to the debtor class; injustice was done in 1797, though not with such immediate results, to the creditor class, when England thought it necessary to do one or either of those things it was done for the good of the country at large in the mind of the people who then acted, and not with the view to the consideration of particular interests. I believe that the harm that would be done to the one and the good that would be done to the other, by that particular thing, would be infinitesimally small, and

I should find it extremely difficult to assess the damages to anyone.

3807. But if the harm is infinitesimally small the good is infinitesimally small?—To the debtor but not to the country. You must try to separate in your mind the question of the benefit to commerce from that of the temporary gain to individuals.

3808. Then what is the sufficient advantage which you admit to be a serious thing?—I wish to establish a par of exchange between all the constituents of this realm, that is the thing that I desire. The effect of alteration of prices is a subsidiary and secondary effect, harmful possibly to some (though as I say the difficulties of ascertaining it are great), but the advantage to commerce of an immutable par of exchange has been tried over and over again in the case of those countries that have had the same standard, and ought to be carried to those countries which have not the same standard now.

3809. Passing from this question of justice or injustice you allow that it is a serious matter to be considered?—Yes, that is my demand; I wish the whole question pro and con to be seriously considered.

3810. You defend the change on the ground of establishing financial relations between the commerce of the different parts of the empire?—Yes, and not only parts of the empire, but between the whole commercial world.

3811. You say the existence of an exclusively gold standard here and an exclusively silver standard in India operates by way of a bounty on the productions of India which are imported here?—I should not put it in that way. My answer was that a depreciated standard operated as a bounty, not the fact of there being a different standard.

3812. Well, we will put in the missing link then. The existence of a gold standard here and of a silver standard in India, coupled with the facts which have caused the depreciation of silver relative to gold, has operated by way of a bounty to the production of things in India?—Yes, I explained in my former examination that it operated by way of a bounty to me, and I was very glad of it.

3813. But you regarded that as a bounty that would not be permanent?—It would not be permanent for two reasons, in the first place that the wages and the cost of the necessaries of life would tend to rise in those countries, and in the second place that by degrees the advantage which they get is cancelled by the fall of the gold prices here.

3814. Do you consider that if the bounty were permanent it would be injurious to the people of Great Britain?—Yes, I should think it would if the bounty were permanent, that is to say, if they could always make a profit by sending produce here, produce that competed with our produce, I should say it was injurious to the people of Great Britain, looking not only at the producer but at the consumer.

3815. If produce that can be produced here can be permanently produced in another country at a cheaper rate and imported here so as to undersell the producer here, that would be injurious to the interests of Great Britain?—I think on the whole it would be injurious. Of course I see the benefit of it. It gives a man something much cheaper than he had it before, but if it gives him less wages in order to buy it I do not think it is much advantage. I see the good but I see a balance of evil.

3816. Does it not lead to this proposition, that the satisfaction of our wants at an easier rate is injurious to ourselves?—That our wants should be satisfied at an easier rate is of course an advantage. But you assume the satisfaction. That foreigners should be able to export their commodities at an easier rate is no necessary advantage to our people, if they cannot buy them at an easier rate. If such and such a thing be reduced to 3*d.* from 6*d.* it is very little advantage to the man if he has not got the 3*d.*

3817. But the fact that it is introduced and sold shows that it can be bought?—That is true. It will not be sent hither when it can no longer be bought,

and thus the evil may tend to correct itself. But we are all consumers, and not the working men only, and may continue to buy when he cannot. The effect is not directly on him, but upon the producer, and upon the general trade of the country, and thus indirectly upon working men, many of whom lose their employment and their wages, which is bad not only for them but for the country.

3818. Have you been in the habit of regarding the cheapness of sugar in consequence of foreign bounties as an injury to the people of Great Britain?—We do not produce sugar here. If we did I should say it was. In so far as we refine it, it is a great misfortune to this country.

3819. Do you speak of the people at large?—Yes, the people at large.

3820. (*Mr. Barbour.*) Do you think that the increased cheapness of sugar, due to the bounty on its production, is on the whole an evil, taking the whole world into consideration? Do you think, in short, that it is a good thing that the production of sugar should be stimulated by a bounty?—I cannot think that it can be a good thing.

3821. (*Mr. Courtney.*) You think that the production of sugar, so far as it interferes with a domestic industry here of refining, at all events, at a cheaper rate is an injury to the people of Great Britain?—So far; you must put stress on so far, but I do not say it may not be good, but so far as it hurts us it is an evil.

3822. And the importation of wheat from India at a reduced price, in consequence of a supposed bounty for its production in India, is an injury to the people of Great Britain?—So far again as it interferes with our production here.

3823. But the matter is comparatively immaterial, because these bounties are not permanent?—Happily.

3824. I come again to the question, is it not a very serious thing to propose an alteration of the law which affects the rights of debtor and creditor upon contracts entered into, in order to avoid the doubtful operation, whether for good or bad, of a bounty which is not a permanent one?—If that were the only cause, if that were the only doubt that I had, I should say it probably was, but because I think it is of the utmost importance to commerce that there should be an unity of money throughout the commercial world for other causes than that of the bounty on sugar or wheat, or whatever it may be, I think it is desirable, and I think we should not look too closely upon the infinitesimal gain or loss that there may be to debtor or creditor any more than our forefathers did in 1816 and 1797, in returning to what was the ancient law of England.

3825. (*Chairman.*) Do you think that the variations in the depreciation by embarrassing the trade tend to some extent to counteract the stimulus given by the depreciation? I understand you to say that one of the evils which embarrasses trade between this country and India is the variation in the exchange owing to the variations in the depreciation of silver. Well, I want to know if that operates in the other direction too, in the trade between India and us, whether the variations do harm?—Yes, I think it might, but then the main question is that the currency there as measured in gold has depreciated, and that the man is paying the same wages that he did before, although the coin which he pays is not nearly the same amount. Just as in Chili I pay two dollars, though the dollar is only worth about 2s., whereas before it was worth 3s. 6d.

3826. But when once a point is reached that higher wages are also paid, which would be reached sometime or other, then you would have, according to your view, precisely the same variation of the depreciation?—I think it may be so.

3827. (*Mr. Courtney.*) I should like to recur again to those questions and answers we interchanged last time about Jersey. Suppose the case we started from; Jersey the only country bi-metallic, with a fixed ratio of 15½ to one, and both gold and silver in

circulation; circumstances arise which cause silver to be produced with much greater swiftness and cheapness than gold. The producer of this silver taking it to the gold monometallic country, finds that the value of the silver is at once depreciated?—Yes, they do not want it at all.

3828. He carries it to Jersey, where he can get the gold at the ratio of 15½ to one, as long as gold exists in Jersey?—He cannot get gold in Jersey at all.

3829. Well, he carries the silver to Jersey, and he can get it coined there?—Into silver coin.

3830. Into silver, and by an interchange of the silver into commodities, and commodities into gold?—No, he cannot change his commodities into gold as of right. He gets it coined into shillings, which is the coin we will suppose in Jersey, sovereigns or golden shillings being also coin. The only thing that he could possibly do as of right is having got that credit to his name of so many thousand shillings in Jersey, would be to draw upon it, and sell his bill here. That is the only thing he could possibly do. It has nothing to do with the gold.

3831. We do not, I think, mean the same thing by the statement of facts. I suppose that when we speak of Jersey being a bi-metallic country with gold and silver in circulation, there a man having a credit at a bank, and going into the bank and saying, "I want 100*l.*," the banker would say to him, "Will you have it in gold or silver?"—Certainly not, unless it suited his (the banker's) purpose to say so.

3832. I admit that by law the banker could say, "I am not bound to give you one or other at your choice," but as long as the two things are in actual potential operation and circulation the transaction would be in that way?—This is what happens, not only in theory but in practice. If the banker does not like to do it, he says, "No, you shall give me two centimes in each napoleon, or 10," or whatever he pleases. It is at the option of the debtor, and must be so, and that is the explanation always of the agio. You could not have an agio if it was otherwise.

3833. (*Chairman.*) Would not he by paying some premium be able to get gold in exchange for his silver?—Certainly, it is at the option of the debtor to give gold or silver, therefore the debtor is quite entitled to say, "You must make it worth my while if I am to waive my rights."

3834. And in that way might not the country become denuded of the gold?—Yes; of course it could, and that I have admitted, and all along have admitted, that the banker may say after a time, "I am willing to take so much." He goes to a banker always, a banker is a necessity of life, and he says, "I must have so much of gold;" the banker says, "If you will have it you must, but you must pay for it."

3835. (*Mr. Courtney.*) The producer of silver, the man who has got his silver takes it to Jersey, gets it coined, and deposits it in the bank there. If he wants gold he has to pay a certain agio?—He may.

3836. And if silver gets more and more brought in he will have to pay a larger agio?—Yes.

3837. But by paying an agio he may, as long as gold is there, get gold and bring it out of Jersey?—Yes, I think he would ultimately.

3838. And in that process if Jersey is the only place where gold and silver are both coined, he can always, at the cost of the agio, which would probably go on increasing, get his silver exchanged for gold?—I suppose he can. Of course one may imagine that for one reason or another the Government of the country may not choose to part with their gold, and may put impediments in the way.

3839. The bank's agio would increase?—Yes, probably it would, but even then the gold would not all leave the country.

3840. What was in commercial life would?—Yes, I think so. That is what was the case in France.

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3841. So that ultimately you might, and if Jersey under the circumstances were the best place for disposing of your surplus of silver, you would ultimately get all your commercial gold out of Jersey?—Yes.

3842. Well, now, what would happen with the silver that was produced subsequent to that?—It would go into Jersey, and inasmuch as the produce of Jersey must very shortly be exhausted, (because when you compare it with the amount of silver that you are supposing, and that might be brought in from all other parts of the world, you must take not only the silver produced year by year, but the silver existing; you must take 700,000,000*l.* of silver we will say,) that would of course very soon exhaust the productive power of Jersey. There would be nothing wherewith to pay, that is all. Silver would go to the point of being used for making kettles or horseshoes or anything else; it would be simply a commodity like copper.

3843. Then would not it come to this, that the ultimate result would be a rise of prices in Jersey and a corresponding depreciation of silver outside Jersey?—I cannot say whether it would be a corresponding depreciation. Depreciation there would be and that would induce demand.

3844. So that ultimately you would get the same dislocation between gold and silver?—Yes, greater, infinitely greater of course.

3845. And the power of Jersey to absorb your silver and to maintain both in circulation would be lost?—Would be lost. I must repeat that the whole of this argument is foreign to the question, and is merely academical. The true example, as Mr. Birch said, is France, whose producing power would never be exhausted, and in fact was not exhausted in this century, though the precious metals poured in upon the country more than they are ever likely to do again.

3846. You said just now, I think, that it was for the benefit of the industry and commerce of the country that its circulation should be large and should be increased?—That it should be sufficient, and that it should increase proportionately to the population and the commerce of the country, not that it should be continually increasing, because that might, I suppose, produce other evils of a different kind, but that it should be abundant in the sense of being enough, and progressively enough.

3847. I should like you to explain why you regard it as beneficial to the country that its circulation should increase, say *pari passu* with the population?—Because I think that falling prices are always depressing both to trade and to the spirits of the trader.

3848. And rising prices are stimulating?—Rising prices are somewhat stimulating. One wants moderate stability of prices, and it is better that the tendency should be rather on the whole to the rise than to the fall; and I say that because all our experience has shown that a real increase of the circulating medium (not a forced increase) has coincided at all events with an increased prosperity of trade.

3849. Then your argument goes beyond increasing the circulation *pari passu* with the population?—No; what I mean is this, that trade has in former times not unfrequently languished by reason of the too great contraction by natural causes of the circulation, and has been stimulated again and brought back into a prosperous state by increased production of the precious metals, as was the case in 1853 undoubtedly, and I think has been the case at other times. Paterson states the case very well indeed in his "Golden Age." He states it in the different periods of history in which that has happened.

3850. I thought your argument was that a rise in prices, supposing it was real, not caused by an artificial expansion of the currency, was always beneficial?—No, I did not put it quite in that bald way, that a rise in prices was always beneficial, but that a fall in prices caused by a contraction of the currency is harmful for trade, consequently the increase of the currency to that point that is needed by the population and by

commerce is for the good of trade. What commerce aspires to is not that such and such a thing shall be higher in price necessarily, but that there should not be that impediment to a natural rise in price, and not that tendency to a fall in price, which is caused by a curtailment of the measure of value.

3851. You want to prevent a diminution of prices?—Yes, a diminution caused by arbitrary acts. Prices will diminish and will rise from time to time, and that is no harm at all to commerce, but that there should be a continuous depressed and declining condition of prices is certainly bad for commerce generally, and particularly for all those people who have made contracts.

3852. Yes, but that at all events is a natural operation?—Partly. I do not want to fight against anything that is for the good of the world, or that comes by nature, but it is generally I think an evil for the whole world of commerce that the price should fall through a forced diminution of the medium of exchange.

3853. That comes simply to this, that you think that it is unfortunate for commerce and industry that the supply of the precious metal or the precious metals does not go on increasing?—*Pari passu*.

3854. Or subject to diminution?—*Pari passu* with commerce. I do not think it is desirable that they should increase if commerce fell off, and commodities fell off and population decreased. But I might retort this argument by asking if it is thought desirable that the supply of the precious metals should not increase—that it should diminish—and if so, to what point.

3855. Well, suppose the bimetallic law were established, you have already considered what effect it would have upon contracts; what effect would it have upon the production of the two precious metals, gold and silver, relatively?—Relatively it seems to me to be of very little importance what it would have. Positively it would have this effect of course, that if the precious metals were produced in such great abundance that prices were continually rising, prices of labour continually rising, the cost of the production of the precious metals would be greater than might be worth while incurring. The result of that would be that production would fall off, and the too great abundance would be remedied.

3856. At present silver is much cheaper if depreciated in value relatively to gold?—Yes.

3857. The establishment of the bimetallic law would be to increase the value of silver relatively to gold?—Yes.

3858. Would not the effect be, on the least profitable gold mines, to diminish their profits?—I doubt that, extremely, except to the small extent to which the whole measure of value in the world would be enlarged. I doubt whether there is a gold mine in the world that is so worked that it depends upon the purchasing power of the metal extracted, whether it shall be worked or not; that is to say, I do not the least believe that the amount of labour consumed in getting out that gold from those mines would be so much greater by reason of the quantity of gold produced, or of the two metals produced, as to make them unworkable. It is conceivable, but I do not believe it.

3859. I do not know whether you can give any figure of your supposed appreciation of gold which would be corrected upon an adoption of the bimetallic law?—Oh no.

3860. You allege, of course, a very great alteration of prices in consequence of the monometallic law which is to be corrected by the adoption?—In consequence not of the monometallic law, but in consequence of there being no union between gold and silver, and in consequence of gold, which is our measure of price, being produced in less quantity, and being more in demand.

3861. But that alteration of prices is to be corrected either by the re-establishment, in operation of the Latin Union, or of some other union of bi-metallic law?—Yes.

3862. (*Chairman.*) I do not quite understand; do you assert as your view that there has been great decrease of price owing to the existence of the mono-metallic law here?—No; the mono-metallic law has existed here since 1816, safeguarded till 1873 by the bi-metallic law of France. What I assert is, that there is a considerable scarcity of gold owing to the falling off of the production of gold, and the greater demand for its use as money, and that, so far as scarceness or dearness of the measure connotes cheapness of the things measured, that involves a decrease of price.

3863. (*Mr. Courtney.*) Might I put it as high as this, that if, instead of the present system, we adopted a bimetallic law, or managed to set at work again the Latin Union, we should find a rise in prices of 20 per cent.?—Certainly not.

3864. Ten per cent.?—I will not say what; I suppose the general run of the fall in prices has been 25 per cent.; I imagine it has been so said, no one can tell exactly what it is, but if the fall in prices has been 25 per cent., I am certainly not disposed to put four-fifths of that to the account of the greater demand and the less production of gold.

3865. But it is desirable to know, in view of the alteration that we propose to make, it is desirable to know, if possible, the magnitude of the evil to be corrected, or the magnitude of the fall to be brought about by your proposed alteration; cannot you give any estimate?—No, I cannot, nor is it possible for any body to give any estimate. You may give an estimate, but it is sure to be a wrong one. But you are now speaking of price, and that is, as I have said, a secondary condition. I want to further stability of commerce between gold and silver-using countries.

3866. (*Sir T. Farrer.*) You would then not at all agree with what Mr. Manning says in his letter to the Congress last year that the price of all agricultural produce in England and in America would be raised 25 per cent. if we adopted a bimetallic system?—I cannot say that I agree or disagree, for I make no computation. I should be inclined to disagree if he says that that is the *exact* amount of the rise. No one can know either the precise rise which would be caused in agricultural produce in common with other commodities by the expansion of the measure of value, nor the precise amount of the much greater rise resulting from the removal of the stimulus to foreign production.

3867. (*Mr. Courtney.*) But supposing it did rise $12\frac{1}{2}$ per cent., that would mean that gold was depreciated relatively to commodities to that extent?—That is quite a correct statement, because the gold is depreciated with respect to commodities wherever commodities are depreciated with respect to gold. That is to say, that whatever be the cause, it is appreciation of gold and depreciation of commodities. If you say it is $12\frac{1}{2}$ per cent., and say that you adopt that as the quantity of depreciation caused by the specific appreciation of gold, that is the appreciation of gold in respect of gold, and not in respect of any

increased production, facility of transport, or decrease of demand for commodities, of course that is so.

3868. I was not turning on the figure. Mr. Secretary Manning apparently says that if the bimetallic law replaced the monometallic system, certain commodities would go up 25 per cent.?—One would—silver.

3869. Apparently he says it of agricultural produce. That is the main thing he had in view. You, I suppose, would hold that commodities would go up something?—Oh yes, I presume they would. However you assess the *specific* appreciation of gold, so you must assess the augmentation of price, which the bimetallic system might produce, so far as it would counteract the now increased demand. This I have explained under question 3734. It would only operate so far as existing silver now unused would become money.

3870. Though you decline to fix the particular limit to which they might go?—I will not even say that commodities will go up any per-centage at all, because the one commodity that you would expect to rise in price might be reduced from some other cause. If they would not rise it would be because something would have caused them to fall *ab extra*.

3871. In speaking of the operation of this cause, we always speak of that cause detached from any other?—An addition of $12\frac{1}{2}$ per cent.

3872. I do not care the least about the figure, 10 per cent.?—

3873. To that extent (10 per cent.) would not the value of gold relatively to that one cause only be depreciated with respect to commodities?—Yes, it is the same thing.

3874. And therefore would not the produce of an Australian mine be not quite in the same proportion, but in something approaching that proportion, be diminished in value?—Well, yes; inasmuch as the value of the gold that is produced by the Australian mine is the value of the commodities which it purchases.

3875. And therefore an Australian mine, if barely profitable before, would become unprofitable?—Yes, it might; but I never heard of such an one, and I do not believe in any such present amount of depreciation of the measure of value, by the admission of the now unused silver to its place as money.

3876. There are many on the margin?—I will not say that there are not, only I have never had any evidence either in respect of silver or gold. Strange to say, since the silver has been depreciated many of the mines that were not producing before have produced; but that is only the circumstance of their finding veins or not finding veins. Such evidence as I have heard has been against the fact of any mines having been abandoned by reason of the low price of silver; but I have been told that in some cases ores that have been brought up are put aside, because the value of the silver to be extracted is not sufficient to meet the expense of the chemical process of reduction. But this cannot, I think, reach to any very important amount.

Mr.
H. H. Gibbs
26 April 1887.

Witness withdrew.

Adjourned till Friday.

Seventeenth Day.

Friday, 29th April, 1887.

PRESENT:

THE RIGHT HON. LORD HERSCHELL, the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.
MR. J. W. BIRCH.
MR. HENRY CHAPLIN, M.P.
MR. L. COURTNEY, M.P.

SIR T. H. FARRER, Bart.
MR. C. W. FREMANTLE, C.B.
MR. W. H. HOULDSWORTH, M.P.
SIR JOHN LUBBOCK, Bart., M.P., and
MR. GEO. H. MURRAY, *Secretary*.

Mr. J. S.
Nicholson.

Mr. J. SHIELD NICHOLSON was called and examined.

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3877. (*Chairman.*) You are professor of political economy in the University of Edinburgh?—Yes.

3878. You have given considerable attention to the subject of the currency and the relative value of the precious metals?—Yes, especially during the last two years. I may say that I took my degree in 1876, both at Cambridge and London chiefly in political economy. At that time I wrote one of the Cobden prize essays in Cambridge on a subject which was the effect of industrial progress on the rate of interest, and then I gave some attention to the historical aspects of currency. Since then I have studied it more or less in connection with my general work, but especially during the last two years, since it became a popular question.

3879. First of all with regard to the fall in the gold price of silver, will you state what in your opinion has been the cause of that fall?—Briefly expressed I should say it was due to the demonetization of silver by several nations.

3880. That is to say, to a diminution of the demand?—Yes. I do not think, that is to say, that the change that has undoubtedly taken place in the supply would in itself have had any effect upon the ratio at all.

3881. There has been some increase in the supply of silver?—Yes, so I understand, but still judging from the effects in former times especially, I do not think that the increase in production would have really had any effect in disturbing the ratio.

3882. Have you estimated at all what has been the increase in the production?—I have only taken the generally quoted estimates, and I have no means of estimating myself.

3883. But taking the statistics to which you have had access, do you come to the conclusion that you have expressed on account of the small extent of the increase of the supply?—No, not on that ground, but partly from theoretical reasons and partly by analogy from former times. For instance in the 16th century the relative production of gold and silver was suddenly reversed, silver becoming much more abundant, and yet the disturbance in the ratio was only from 11 to 1 to 12 to 1, although there the difference in the production of silver and gold changed from about 1 to 3 to 3 to 1. And then again, in the 19th century, gold increased in a similar way with no appreciable effect on the relative values.

3884. Are there statistics which you think can be relied upon with reference to the relation of the two metals at the former date?—As far as I understand the investigation was made by Humboldt in the first place and corrections have been made by Jacob, and later by German writers. The figures that I quoted, were taken from an essay by Nasse in Schönberg's hand-book on political economy. I think they are

generally accepted. At any rate arguments on all kinds of currency questions have been derived from these statistics. They are the best that we can obtain.

3885. Then I understand your view to be this, that the change in the supply in the direction of increase, though it has been much less than at the date you have mentioned, has produced a much greater effect, and therefore you do not think that the effect can be attributable to the increased supply?—Yes, that is my position. In my paper on the effects of great discoveries of the precious metals I have quoted the statistics on pages 46 and 47, of the production in the 16th century and in the 19th century. At page 46, I give the proportional amounts. "According to the latest and most carefully compiled statistics I have been able to obtain, in an essay by the celebrated economist Professor Nasse, the facts of the case in the 16th century are broadly stated as follows:—At the commencement of the 16th century, the relative production of silver compared to gold was about 34·3 silver to 65·7 gold, and the relative values of the two metals were in a ratio of nearly 11 to 1, the highest computation for the value of silver being 10½ to 1, that is, 10½ to 11 oz. of silver were worth 1 oz. of gold. In the course of the century the proportion of the production of silver to gold rose to 78·6, as compared with 21·4 of gold, and the ratio of the relative values became "only by gradual stages 12 to 1," the relative positions of gold and silver as regards the total production changing in the meantime.

3886. How do you account for there being such a very slight change, and that only a gradual one with that very remarkable change in the relative production of the two metals?—I suppose it must be due to the fact that the silver was used mainly as standard money all over Europe, that it was absorbed as standard money; that it could be readily coined, while at present it is only taken as token money.

3887. But when you speak of its relation, was it then a fixed legal relation?—No, I refer to the market relation. As Dr. Soetbeer points out, the ratio fixed by the Mint regulations in various countries was determined by the previous market rate. (*Materialen, &c., p. 23*).

3888. But why should the market relation change so very little, scarcely perceptibly?—Because of the silver being absorbed as standard money. At the same time there was an enormous increase of the trade and commerce of the world stimulated by the increase of silver. That is brought out in the passage that I quoted, from Tooke and Newmarch's "History of Prices," at page 44 of this paper of mine on "The effects of great discoveries of the precious metals." It is asserted by Tooke that, "We have

"the fullest warrant for concluding that any partial inconvenience that might arise from the effect of the American supplies of the sixteenth century in raising prices, was compensated, and repaid an hundred-fold by the activity, the expansion and vigour which they impressed for more than one generation upon every enterprise, and every act which dignifies human life, or increases human happiness." It is one sentence chosen from an essay in the form of an appendix to one of the chapters in volume 6, on the effects of the gold discoveries. It is intended to illustrate the effects of the gold discoveries by what happened in the case of silver in the 16th century.

3889. Yes, but I am not quite sure that I understand why if there were no fixed legal relation between the precious metals there should be this almost imperceptible change in the market relation, notwithstanding the immense discoveries of the one as compared with the other?—I should imagine it was due to the fact that the surplus silver instead of being thrown on the market to be sold as a commodity for making ornaments and so on, really was minted and used as standard money, and that in consequence of the great increase in trade at the time was principally absorbed as standard money. Therefore there was really no very great addition to the supply which would govern the market price.

3890. But would it not come into the market in the first instance? How would it get to the point of being minted. Would it not in the first instance be bought and sold?—I believe silver was the principal standard coinage at the time all over Europe, so that silver bullion would not be bought as at present with gold. One would naturally have expected a rise in the silver price of gold bullion, and I presume this did not happen, because so much silver was required for commerce. As matter of fact the distribution was rather curious. It came to Spain in the first place, and Spain tried to keep the silver to itself. But it was gradually distributed over the world, through commerce, especially by the Dutch, and it acted really as money in settling international transactions. I have not investigated that part of the subject in detail, but I simply take the fact that there was a great change in the supply, and that there was no corresponding change in the ratio, and I presume that it must be due to the fact that there was a large demand for currency purposes. Similarly, Dr. Soetbeer ascribes the great change in the ratio in the 17th century to the greater demand for gold, and not to the over-supply of silver.

3891. Still one can hardly arrive at a satisfactory conclusion from a comparison of the change in the relative production at those two epochs without going into the circumstances of each epoch to see how they affected the case?—No, I should not rely simply upon the facts. I think it would be most illogical to argue simply from two facts to a general theory, but still these facts from the 16th and the 19th centuries do illustrate the position that you may get a very great change in the supply with a very small effect on the ratio; and the few facts that we have to go upon are evidence in favour of the view that the demand is the most important.

3892. (*Sir T. Farrer.*) Do we know that at that time silver was very much more used for currency than gold?—That is my impression.

3893. But you do not know it as matter of fact?—In England, Jacob states that from 1272–1509 the silver brought to the Mints was 1,185,198*l.*, and the gold, 446,908*l.*, and certainly all countries used silver as standard money.

3894. (*Chairman.*) You come, then, to the conclusion that there was not sufficient difference of supply to account for the change in the gold price of silver?—Yes, and I believe it was established in the report of Mr. Goschen's Committee that the fall could not be attributed to the increase in the supply.

3895. Therefore you turn for the explanation to an alteration in demand?—Yes.

3896. You find that alteration in the demand, as I

understand, in the demonetization which took place in 1873 by Germany?—Yes, followed by the changes in other countries, such as the Latin union ceasing their free mintage of silver.

3897. And what other element do you take into consideration?—Then Norway and Sweden, I think, changed their currency at the same time; and in the United States there was the adoption of gold currency with a subsequent modification by the introduction of the Bland Act. Then there was also the additional demand for gold due to the change in the policy of Italy, substituting gold for inconvertible paper.

3898. Those are matters that would affect the value of gold. I was rather dealing with the change in the gold price of silver resulting from the changes in relation to silver?—I should say a lessened demand for silver, the change being not only in degree but in kind; that is to say, that a demand for silver for token money is not the same as a demand for silver for standard money.

3899. Before we go into that, I understand you to point to this, that there was also some change in the demand for gold, an increase in the demand for gold?—Yes, owing to the substitution of gold for silver, or for notes, as the case might be.

3900. But which do you consider the important element, the diminished demand for silver or the increased demand for gold?—I never tried to separate the two, that is, in estimating the effects of the demonetisation of silver.

3901. You deal with them together?—Yes. Silver was sold for gold, and less silver was wanted for standard money. Thus there was a greater demand for gold than for silver.

3902. I am now speaking of the depreciation of silver as compared with gold, not of gold in relation to commodities at all?—I should look upon that as due primarily to causes affecting the relative demand for currency, rather than to causes affecting the appreciation of gold relatively to commodities.

3903. So far as that is concerned, it would affect silver, as I understand you, only in the same way that it would affect other commodities?—Yes, the appreciation would only affect silver so far as it would affect other commodities, if silver is regarded simply as a commodity, but then there are special causes at work which would depreciate silver.

3904. I think we had better keep those two entirely separate. You would agree probably that the question of the general appreciation of gold in relation to commodities may be dealt with as an entirely separate question from the question of the depreciation of silver?—Yes, I generally do treat them separately in anything I write on the subject.

3905. Then we will continue our investigation as to the depreciation of silver, deferring the other question till afterwards. You say that the monetary changes to which you have alluded have diminished the demand for silver?—Yes.

3906. And, therefore, the result has followed which you would have expected, that the price of silver has fallen?—Yes.

3907. You suggest that the fall in prices may affect the amount of silver that is required even for token money?—Yes, but that is bringing in the question of the appreciation of gold, and rather refers to the future. It seems to me that, supposing there is a great fall in prices which would be expressed by the appreciation of gold in the gold-using countries, then so far less token money will be required. You do not require so much money to circulate commodities when prices are low as when prices are high, so that in this case there would so far be a diminution in the demand for silver for token coinage. If all prices fell, we will suppose a half, then I would imagine that less token money would be required. I do not know that the change would be exactly proportional, but less token money would be required to circulate commodities just as less standard money would be required.

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3308. Might you not want more of your token money, because there would be a greater demand for smaller sums. Supposing you had no half-sovereign coinage at all, but only a sovereign coinage, and then your sovereign became appreciated, and prices fell, would not there very likely be a greater demand for token money, because there would be more transactions in which you would want the smaller coin?—Yes. I did not consider it in that light, I simply considered the question from a kind of necessary proportion between prices and the quantity of money, and, I confess, I assumed this without thinking of the point you mention.

3909. (*Mr. Courtney.*) Suppose it were necessary to resort to the use of farthings in purchasing commodities; we do without farthings now, but we should be compelled to have farthings coined?—Yes.

3910. (*Chairman.*) Then another aspect of it is that you might have lower prices and a largely increased number of transactions?—Yes, of course, that would be possible.

3911. Then we should require more token money, and not less, should we not?—Yes, so far, but then I do not see that there would be any connexion between the fall in prices and the increase in the number of transactions.

3912. No, I am not suggesting that necessarily you would have an increase in the number of transactions because you had lower prices, I am only suggesting that one must not assume the contrary as matter of fact?—No, not as matter of fact. I am only assuming that the effect of this particular cause would be that less silver money would be required if prices fell. Of course, at the same time, the number of transactions might increase. In this way the cause mentioned might be entirely neutralized, even though it operated in the way I thought.

3913. (*Sir T. Farrer.*) Have you at all verified, or attempted to verify, that supposition by reference to the actual quantity of silver coined in European countries and the United States?—No. I do not see how verification would be possible, because there are so many other causes which would have to be taken into account that one could not get direct evidence; for instance, the increase in the number of transactions just mentioned.

3914. The coinage is always a very uncertain thing, is it not, because coin may be remelted, so it is an uncertain statistic?—Yes.

3915. But so far as that goes, according to Dr. Soetbeer's tables, it would appear that the quantity of silver coined in those countries from the years 1876 to 1880 was very considerably larger than it had been in any previous years?—Yes; I remember seeing that; but I think the recoinage is not accounted for.

3916. Well it would appear that, to take the time just before the German demonetization from 1866 to 1870, the coinage of silver was 1,172,180 marks; in the next period 1871 to 1875 it was 1,387,908 marks; in the next period 1876 to 1880, 1,738,499 marks; and in 1881 to 1885 it fell off to 1,120,312 marks; but the proportion of silver to gold continued much about the same all through those periods?—Yes.

3917. (*Mr. Barbour.*) Was there not in those years a large substitution of small silver coin for other forms of currency?—Yes, and I think the figures are vitiated, from the fact that no account is taken of re-coinage.

3918. (*Sir T. Farrer.*) The whole does not show a falling off in the quantity of silver coined for token coinage?—No; but at the same time there has been in Germany, I believe, an increase in trade, and that of itself would require more token money, and more money of all kinds.

3919. (*The Chairman.*) Do you know whether there was a great difference in the amount of token money in this country as between say, the time prior to 1873 and the time subsequent to 1873?—No; I do not know as matter of fact.

3920. Your view is that countries where silver is standard money cannot obtain it except in payment

for commodities. But the prices of their commodities are falling in the western markets, and thus silver is not absorbed in such large quantities; does that result from the depreciation of silver?—Yes. The question is sometimes put, how is it that since silver is depreciated it does not flow in large quantities to the East? Well, I should say, that the effect of the depreciation lowers the prices of the Eastern produce, and therefore, so far less silver is due to settle the balance of trade.

3921. And the price of the commodities exported from silver-using countries is also falling?—Thus, so far as that cause is concerned, less is due. Of course I am taking the question analytically, and taking one cause at a time, if the exports from silver-using countries have fallen in price, then so far there is a less balance due. If prices had remained as before, then the exports would have increased in value, and very much more silver must have been sent.

3922. (*Mr. Birch.*) If the volume of commodities was greater, the price being the same, they would draw more silver, of course?—It depends upon the extent to which prices fall.

3923. Therefore it is not a fixed rule?—No.

3924. (*The Chairman.*) One of the points that you make is, that the fall does stimulate the exports very largely?—Yes. I have no doubt that on balance there is an increase in the amount of silver sent so far as this cause is concerned. That would show that the exports increased in volume more than they fell in price; but still this fall in prices is one cause, it seems to me, which ought to be taken into account in explaining how it is that silver has not gone at once in large quantities to the East.

3925. At all events your point would be that although it stimulated the exports, yet the full effect of that was not felt in attracting silver because the exports sold at a lower price?—Yes.

3926. (*Mr. Courtney.*) They sold at a lower price measured in what?—Measured in silver. That is to say, they obtained less silver than they would have done but for the fall in gold prices.

3927. Taking a concrete illustration, that the export is brought from India to England, are you saying that the prices are lowered in the English market?—If prices on this side remain steady, then very much more silver, silver being depreciated, would be obtained than is the case at present; but this depreciation of silver lowers the gold prices of these commodities on this side.

3928. Well, if they are lowered in this market in gold, and silver is lowered in this market in gold, it might possibly happen that silver and the commodities themselves may remain in the same ratio?—Yes; that might happen certainly.

3929. Then would your reason against the export of silver to the East still hold?—Simply taking the effect of one cause so much silver is not sent as would be the case were it not for the depreciation, if the volume of trade increased in the same manner.

3930. (*Mr. Fremantle.*) But if silver were depreciated as regards commodities, you would require more of it in payment of the commodities in the East, would you not?—Yes; that is, if silver prices in the East had risen, but I was assuming they remained steady.

3931. (*Sir T. Farrer.*) You mean that if gold prices had remained as high as they were, and silver had depreciated, then a larger amount of silver would have been needed?—Yes; that is the point.

3932. (*Mr. Birch.*) That is provided always the same quantity of commodities had come?—Yes. I thought that was the assumption made by Mr. Bagehot and others. They supposed that prices on this side would remain the same, and in consequence large quantities of silver would be due. But prices do not remain the same owing to the prior depreciation of silver.

3933. (*The Chairman.*) When did the last of the causes to which you attribute the change in the value

of silver relatively to gold take place; the demonetization by Germany was in 1873, the French ceasing to mint was shortly after that?—The suspension of the coinage by the Latin Union took place very shortly after the German demonetization.

3934. Would you not expect the effect of the changes from these causes to be developed to its full extent at once or in a limited time, and afterwards that matters would settle down to a condition of equilibrium?—You mean that silver should have fallen at once 20 per cent., and then remained steady. Well I should say because silver no longer being used as standard money, at least not being freely minted as standard money on this side then there is not the same demand for it, and a very small addition to the supply being thrown on the market as a commodity, that operates upon the price. At this stage the supply does come in, only it comes in under different conditions.

3935. Therefore, the subsequent changes and fluctuations you would attribute to the changes in the supply?—Very largely to changes in supply, but of course also you might get the operation of any sudden change in demand. I believe recently there was some oscillation upwards in the price of silver owing, it was explained in "The Times," to some demand on the part of France for Tonquin.

3936. (*Mr. Barbour.*) Then you think that in the present state of affairs the price of silver for the time being would depend a good deal on the balance of indebtedness between the East and the West?—If there is a demand for silver, then it will depend a great deal upon that. It also will depend a great deal upon the supply. The changes in supply would operate considerably now owing to the change in the demand being a change, not only in degree, but in kind, that is, the silver cannot be minted freely, so that practically it all of it becomes a commodity in the Western markets.

3937. (*Mr. Fremantle.*) But then to what would you attribute the fact that since 1878, when the Bland Bill was passed, notwithstanding that 5,000,000*l.* sterling have been coined ever since by the American Government, there has been still a great and continuous fall?—I should say it must be largely due to the increase in supply relatively to the total demand.

3938. (*The Chairman.*) That change, the mintage of 5,000,000*l.* a year, you would have expected to make, would you not, other things being equal, a change in the price, a tendency upwards?—And I have no doubt that it did, so far at any rate, prevent silver from falling so much as otherwise it would have done. I imagine that if the Bland Act were suspended to-morrow, there would be a considerable further fall in the price of silver, and so, I presume the passing of the Bland Act checked that fall.

3939. (*Mr. Barbour.*) Do you know whether at the time the Americans began to coin silver largely, there was a considerable cessation in the coinage of silver in Europe, which may to some extent have counterbalanced the coinage under the Bland Act?—Yes, I should think that was the case, but at the same time I cannot refer to the facts, and it seems to me the facts are difficult to follow owing to the question of re-coinage.

3940. (*The Chairman.*) If I remember the figures that were given, there was a considerable fall which went steadily on after the Bland Act was in operation?—I should only say, that taking one cause at a time, that Act must so far have prevented the fall from being so great as it otherwise would have been. It caused the absorption of a certain amount of the silver. If that silver had been thrown on the market it must have lowered the price. But of course it might have been counteracted by other causes.

3941. What rather struck me, looking at the figures, was, one saw a progression downwards in the price of silver, and hardly saw any sufficient change in the supply to account for it, considering that the Bland Act came into operation?—Well I should only say that had it not been for the Bland Act the fall must

have been greater; I do not see how it could have been otherwise, but at the same time the price of silver would depend upon so many causes and so many changes in the demand of various kinds, that it is quite possible that they might more than have neutralized this absorption of the supply through the Bland Act. It seems to me always so very difficult to argue from any single fact to the general question.

3942. As I understand in your view this depreciation of silver is likely to remain permanent, so long as the existing monetary arrangements continue?—Yes, I do not see any reason why it should rise in price to the former level.

3943. Except by a considerable diminution of production?—Except, of course, if there was a considerable diminution of production, or, of course, it is possible that there might be a very great increase in the demand for the purposes of the arts, if wealth were more evenly distributed, and a large amount of silver was used in that way.

3944. (*Mr. Fremantle.*) And large discoveries of gold would have the same effect?—I suppose large discoveries of gold would have to some extent that effect also.

3945. (*The Chairman.*) Then under present conditions you anticipate a continual downward tendency in the price of silver, and, subject to that downward tendency, frequent fluctuations?—Yes, in view of the apparent increase in recent years in the supply of silver, the want of a demand upon this side for the purposes of coinage, and the comparatively small export to the East at present, a further fall seems possible.

3946. (*Mr. Courtney.*) You anticipate a further increase of supply?—Not a further increase, for I have no means of judging, but the amount actually produced at present, if that continues, is more than can be absorbed on this side, I should suppose. But I should certainly expect constant fluctuations in the price.

3947. (*Mr. Birch.*) Have you any particular reason for looking forward to those constant fluctuations?—The price of silver is determined by the changes in the demand and supply practically in the London market, and there constant changes will occur. There is no reason to suppose that the demand depending upon various elements will exactly balance the variations in supply.

3948. (*The Chairman.*) Before these monetary changes were there fluctuations in the price of silver?—Yes, there were fluctuations between 1803 and 1874, but I believe that these fluctuations were at any rate very small. I think they have never been more than 2 per cent., and they were probably due mainly to causes affecting the exchanges between different countries.

3949. Apart from the question of the downward tendency, do you think that the fluctuations are likely to be greater now than they were then, that is to say, the slight changes resulting from changes of demand or changes of the rate of exchange?—I should think that the conditions being altogether different, we should expect much greater fluctuations, and more frequent fluctuations, because, whilst France was bimetallic, that practically steadied the price.

3950. What have you to say with regard to the question of the evil caused by the depreciation of silver?—It seems to me that it is necessary to separate the two questions of the appreciation of gold due to the fact that gold does the work formerly done by silver to a large extent, and the question of the depreciation of silver, and the fluctuations in the price of silver affecting international trade particularly.

3951. Before we come to the evils resulting from the appreciation of gold, will you state what are your grounds for asserting that there has been an appreciation of gold in relation to commodities?—In the first place the ordinary calculations founded on the index numbers which show that in a large group of commodities, at any rate there has been a fall in prices; and then I should myself found a good deal upon the

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want of expansion in the revenue returns showing that there must have been general appreciation, not only as regards those commodities on which index numbers are founded, but as regards commodities generally.

3952. With regard to the commodities which have been dealt with by index numbers, there have been several different groups formed, have there not?—Yes.

3953. The “Economist” group, I think, consisted of 22 articles, and the Hamburg group of something over 100?—Yes.

3954. You do not find, whichever group you take, anything like an universal fall of prices in all the numbers of the group?—No, not in the same degree.

3955. Not only in degree, but you find some of the group rising during the time others have fallen?—I should think it is quite possible. I do not remember at this moment if any commodity has actually risen during that period, but I should think it would be quite possible.

3956. It is possible entirely to alter the results arrived at, is it not, by leaving out one or two of the elements of the group, I mean as to the results at particular dates?—I should think in those particular cases, comparing the prices between 1874 and the present time, that you would not change the result very much by leaving out one or two of the items.

3957. In the two or three years immediately preceding 1873, was there not a very great rise in the price of particular commodities that are largely dealt in?—Yes, I believe so.

3958. But you would not attribute that great rise of price which took place in the few years preceding 1873 to any monetary change, there had been no more gold discovered?—No great quantity, and no important metallic monetary change.

3959. It would be attributable, would it not, to the great demand that there was owing to speculation and the number of enterprises that were started?—I suppose the great rise in coal and iron would be largely due to that, but I should also imagine that the expansion of prices was largely due to the after results of the Franco-German war, leading to a greater demand for commodities from this country to replace the capital destroyed or disorganized in France and Germany.

3960. Would you not have expected, entirely independent of the monetary changes of 1873, that if speculation had exhausted itself, and people had come to be less willing to lend their money to speculative enterprise, and if other countries had supplied themselves freely enough, prices would have fallen quite independently of any monetary change?—Yes, I should fully expect that, because that seems to me to follow on the analogy of all the periods of expansion that have taken place over more than a century. You get nearly every 10 years a great expansion followed by a necessary reaction, the expansion being due largely to the inflation of credit. But then I should have expected also, had it not been for this monetary disturbance, that a recovery would have taken place, such as appeared to begin in the autumn of 1879 and beginning of 1880.

3961. Would not that to some extent depend upon whether credit had revived, and people were willing to trust, for example, foreign States whom they had trusted before, but were not quite so ready to trust now with their money?—But the history of at least 100 years seems to show that you would get such a revival of credit in a much less time than has taken place since 1874.

3962–3. But what I would call your attention to is this, which, I think, may be worth attention: In the previous crises, you have had financial difficulties, which have led to the failures of banks, and so on, through overtrading, and it has taken some time before confidence has been revived, but was not a feature of the break up of confidence about that time, that it arose not from banks failing, or great financial or mercantile difficulties, but from people ceasing to trust foreign states that previously had executed great works by means of the money which they derived from

this country?—I have no doubt that was an important element; but in other crises also an important feature was the advance to foreign states of loans for different purposes. Such was the case in 1825 and in nearly every crisis since foreign influences have been felt.

3964. (*Sir T. Farrer.*) And is not this feature peculiar to the last crisis; take the article of coal to which you have alluded, would not the result of the enormous price of coal cause an immense deal of capital to be expended in the development of coal mines?—Yes, I should think so.

3965. And is it not the result that coal is only recovering its previous position, and the coal miners have been since permanently injured, and that they have not yet recovered—the demand has not yet reached the supply?—I should think that is probably true as regards coal.

3966. Iron depends upon coal largely?—Yes.

3967. And that would follow, probably, the same rule?—Yes.

3968. Again, is it not the fact, that the great boom in shipping during that period, has caused an immense over supply of shipping, and the demand in that case has not yet reached the supply?—There is certainly a great increase in shipping, but I am not able to say at present whether the supply is greater than the effective demand.

3969. (*Chairman.*) With regard to iron, I do not know whether you are aware that an enormous number of new furnaces were erected, and there was an immense amount of extra production at that time?—Yes, I am quite prepared to admit, that if you take a number of very important commodities, you, no doubt, may explain the fact of the fall in prices by purely relative causes affecting those particular commodities, but then it seems to me that when the fall pervades the total mass of the commodities, you cannot arrive at the causes simply by examining the relative combination of the demand and supply of a few particular commodities.

3970. But take the case of the great increase of carrying facilities which was brought about by that speculative period, in the making of the large addition to the railway system in foreign countries; would not that of itself tend to some extent to bring into the market a great increase of commodities which would tend to reduce prices. If you had a very rapid increase of carrying facilities, would not that tend to flood the market with commodities which would be likely, if in excess of the demand, to diminish the value?—I have no doubt that would operate in that direction, but I should think it was not a sufficiently general cause to account for the universal fall in prices.

3971. But has there been an universal fall in prices? That is what at present, I think, we have no evidence of. Some prices have fallen very much indeed, and if you take a number of articles and look at the total result, setting rises against falls, you will get a large fall; but then, would it not be perfectly possible to find an efficient cause for each one of those fallings in price, without any general cause affecting the whole? You do not suggest that there is to be traced anything like an universal fall of prices of all commodities?—Yes, I should say that there was a general fall in prices of all commodities. Of course, the fall is not uniform.

3972. But that is exactly the point that I want you to throw further light upon. Might it not be true that there is a fall upon the whole, and that fall upon the whole only results from setting falls against rises and arriving at the total result, and yet that there is an efficient cause for each fall apart altogether from any general depreciation?—But every particular price depends partly on general and partly on relative causes. You see that best with inconvertible paper. Some prices might fall for special reasons, in spite of a general rise through depreciation. Besides, I should argue that if the fall were due simply to these relative causes of themselves, a reaction must have set in long before this.

3973. Take coal for example: Are you aware that a year or two prior to 1873, an immense number of new collieries were started?—Yes, I believe so.

3974. And are you aware that they came into operation after the depression had begun, and the demand had diminished?—Yes, I should imagine that was the case.

3975. Would not that be likely for a considerable time to cause low prices in that particular article if that had taken place on a large scale throughout the country?—Yes, I should think so. I should be quite prepared to admit that as regards that particular article. I have no doubt that as regards many commodities that might be the case. But still I cannot understand how this fall in prices can be due purely to relative changes in supply and demand.

3976. Of course you would agree that a great increase of carrying facilities would tend to bring into this market large quantities of commodities which would not otherwise come if freights were very low, for example, and you had a very large number of vessels seeking employment?—Yes, I suppose it would if freights kept low.

3977. Then, taking the other result, which you suggest from the depreciation of silver, namely, the stimulation of export, we will suppose, of corn from India. Would not that, quite apart from any general appreciation of gold in relation to commodities, of itself be sufficient to bring down the price of corn?—Yes, quite so. I think that in some cases the fall in prices is due directly to the depreciation of silver. I should like to add that I do not rely only on the index numbers, but I was partly confirmed in the view that there had been a general fall in prices by applying the method that I have used in the paper published in the "Statistical Society's Journal," March 1887. This depends in its practical application upon the revenue returns, or rather the gross assessments for the income tax returns, where you have no expansion on the whole; and I should say that the want of expansion could only be explained by the fact of a general fall.

3978. But you have had a great expansion, if you take the present time as compared with twenty years ago?—Yes, but not taking into account the increase in population and the increase in the volume of trade. So far as I could get evidence, the increase does not seem so great as it ought to have been, but for a change in the level of prices.

3979. Let me ask you this: In what way do you think a change in the volume of gold for currency affects the prices? Supposing that to-day a bargain is being made for any commodity you please. The buyer and the seller will consider probably what price it closed at yesterday, and they would anticipate with regard to future supply and future demand, whether trade is likely to be brisk, and so on. All these considerations will enter in, and then they will fix the price to-day. The same operation will go on to-morrow, and also day by day, say, for a couple of years. Supposing that during that time there has been a change in the volume of gold; say, a decrease. Where does that touch any of the transactions? It is not a point which would be considered in any of these daily bargains which I have suggested; and how, if nobody considered the question of the volume of the currency, does it touch the price?—I think it may operate in one or two ways; in a country with highly-developed credit institutions, the contraction of the gold supply might operate on the reserves of banks; the consequence being a rise in the rate of discount, and then it would be difficult to obtain the same advances of capital, and there would be in that way a fall in price such as is constantly exemplified. That is one way; but then there does not seem, so far as I can gather, to be any evidence that there has been such a drain on the reserves in this country.

3980. Is not the evidence exactly the other way—that money has been so cheap during all this time?—Yes, and not only as regards this country, I believe, but as regards the other National Banks, there has been apparently great abundance of gold, so that it cannot,

it seems to me, have operated in that way. At the same time it must be observed that with falling prices there will be a lessened demand for advances, and also that even low rates are more onerous. But then there is another way in which the quantity of gold can operate, and that is, because in some places it seems to me the currency is directly connected with the level of prices. In countries where there is very little credit, there the level of prices depends really upon the actual quantity of money in circulation. If this depression set in to a large extent in these undeveloped countries (and that seems to be the view taken by Mr. Giffen, in his essay on the depression), it is just in those very countries where there is very little credit and where the contraction of gold would make itself felt directly. I should have said also that there is no sharp line between developed and undeveloped countries. All the latter have some banking, and their banks may have had insufficient funds, and have been unwilling to lend. Then if there is a fall in the price of any important staple commodities, even in those undeveloped countries, that fall will be reflected to other markets, so that we may get the contraction of gold operating directly through the want of circulating medium, in some place or other; but it does not matter really where it operates, owing to the great inter-connexion of markets in modern times.

3981. But that would not depend upon any appreciation of gold here, it would only be that a particular country offered its commodities at a lower rate, and that brought down the price of those commodities?—But then I should say it is impossible to consider the value of gold, taking one country alone; you must take the value of gold in the sense of exchange value. It is necessary to take all the countries which have trading connexions.

3982. Then, if you do that, does it matter in which country the gold is, if you are to look at the total quantity of gold in relation to the total quantity of commodities in trade?—Yes, I think it does.

3983. It would not have occurred to me that it would matter whether Germany had this additional quantity of gold or not, if the same quantity of gold has found its way into the currency somewhere?—But you require a certain amount of gold as reserve, and you require a certain amount of gold as currency and supposing that for the currency, which was formerly silver, you substitute gold, then you must take that gold from some other place, so that you then have less gold altogether for currency compared with the commodities.

3984. Yes, but if these undeveloped countries were silver-using countries, no such effect would be produced, because they would have all this silver set free?—If they were all of them silver-using countries, then it would not have that effect; but I should say that there are different undeveloped countries which use gold—our colonies, for instance—and there are always certain parts of other countries which must be considered as undeveloped, also where you require gold.

3985. (*Sir T. Farrer.*) You may say that as regards the gold in the reserve in the highly civilised countries, there is as much of it as there ever was, if not more?—I believe so.

3986. And that the guardians of that gold have no greater difficulty—rather less difficulty—in maintaining and replenishing their reserve?—I believe that is the case with the present demands of trade, and the present state of prices.

3987. It is a thing we have been always taught to believe, that gold will flow from the countries where it is less wanted to the countries where it is more wanted, and if there is a deficiency of gold in those undeveloped countries, would not that tell upon the reserves of the civilised countries?—I do not see how these undeveloped countries are to draw upon the reserves of the banks of this country.

3988. Take Australia, which is one of the few undeveloped countries that uses gold; if there was really a deficiency of gold in Australia, would not the

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effect be either to stop the transport of gold from Australia to this country, or to draw gold from the banks in this country to Australia?—It depends on the way in which the deficiency was felt in Australia. I suppose if there was a deficiency felt by the Australian banks which resulted in a very high rate of discount in the Australian banks, that would tend to draw gold from this country.

3989. Or if the price of wool was to fall very much in Australia?—I do not see how that would attract gold from this country.

3990. Or a general fall in prices?—I do not see how that would necessarily attract gold from this country.

3991. (*Mr. Fremantle.*) Are you aware of the fact that a year or two ago, there was a balance of export of gold in the year to Australia?—Yes, I had that in my mind when I spoke about the rate of interest.

3992. (*Sir T. Farrer.*) When I say a fall of prices, I take it upon your hypothesis that prices are connected with gold. If, upon your hypothesis, prices fall in Australia would not the result be a large purchase of Australian goods, and an export of gold, from this country to Australia?—Well, if there was a large purchase of Australian goods, the point would come in there again that I mentioned before, if the price had fallen in Australia, so far, less would be due. It is possible then, that our exports might still balance the exports from Australia, and that no gold might be due on that account. Of course, I admit the general theory that a relative fall of prices in any country stimulates exports, and thus tends to turn the balance of trade in its favour.

3993. (*Chairman.*) Supposing that the view you have suggested be the correct one, that in these undeveloped countries, there being a scarcity of gold, prices fall, and so things sell at a lower price, would not the extent to which that affected prices generally depend upon two things, first of all, what the commodities were in which those countries dealt, and next the volume of commodities in which they dealt, as compared with the general volume of those commodities?—Yes, I suppose that must be so. It would be very difficult to estimate the total effect.

3994. But taking Australia as an instance, what are the commodities in which you would suggest that that effect would be produced?—I suppose the most important Australian export is wool; well then, I should imagine that the relative deficiencies of gold in Australia, compared with the amount that there was before, might lead to there being less circulating medium in the country, and, consequently, less wages paid to the shepherd, and so on, and ultimately a fall in the price of sheep.

3995. Of course the wool produced in Australia is much more than would be used for any Australian purpose. Supposing there was a very largely increased production of wool, would not that equally account for the fall in the price of wool?—Yes, I should think so, certainly. But I only take that as an example. I should say that to illustrate from the converse case, if we look into the effects of the great gold discoveries in Australia, we know at the time they were made there was an enormous rise in all prices in Australia in 1850.

3996. Yes, but might not one give a very good explanation of that without supposing that it depended on the increase of the volume of the currency, for instance that it arose from the number of people who went out there, the activity produced in shipping, and building railways, and so on. All that one can quite understand independently of any change produced in the volume of the currency?—But I should say that it would be impossible to maintain this high level of prices, unless you had currency to circulate the commodities. If you had attempted to circulate the commodities on any credit system, that would have produced a strain on the banks, and one did occur, producing a great financial crisis in Australia. It really was necessary to have

a large quantity of gold coined in order to support that high level of prices.

3997. But still, supposing some effect were produced in that way, you would not suggest, would you, that the change in prices bore a percentage proportion to the percentage increase or decrease in the volume of currency as compared with commodities?—No, I do not think we can get an exact proportion, but I express it rather by saying that the general level of prices is a function of the volume of gold, though I cannot say what precise function it would be.

3998. The more extended and perfect the system of credit, the less its effect would be?—I should not like to answer that question on the spur of the moment; it seems to me so very complicated the way in which the gold affects prices, when you take into account a highly organised system of credit. For instance, supposing the amount of gold which was generally deposited with the great national banks were doubled, it seems to me that it might possibly make wholesale prices rise only very little, or it might in certain conceivable cases make them rise greatly, but we could not say at once what the effect would be. In the converse case it is easy to see how a drain of gold might affect prices more than proportionately.

3999. But supposing that the transactions were carried out by an actual exchange of gold for commodities, the relation between the change in the quantity of gold, and the change in the prices of commodities, would be much more direct and constant, would it not?—Yes. I should think under hypothetical conditions that you might lay down that it would be exactly proportional, the change in price to the change in the quantity of gold. I have described the conditions in my essay on "Money."

4000. But when it is stated that prices depend on the relation of the volume of the currency to the volume of the commodities, does not that rather assume that all transactions are carried out by the direct exchange of the commodities for the currency?—I do not think so, because you have to consider also the amount that is required by the banks as a reserve.

4001. (*Mr. Courtney.*) Might I put a rather fanciful illustration that might perhaps bring out your view. Supposing the Government suddenly possessed themselves of a treasure of 10 millions of sovereigns coming from nowhere, and could dispense in consequence with the collection of the income tax for one year; and that an additional 10 millions of sovereigns were thus thrown on the market, through the Government making its payments, and not drawing from the taxpayers, as hitherto, those 10 millions, what would you conceive would be the effect upon prices?—I think there would be so far a rise in prices.

4002. Can you suggest any proportion of any kind?—I cannot suggest any proportion at all.

4003. Would the effect be different from the result produced if instead of having that 10 millions of sovereigns so discovered the Government issued 10 millions of inconvertible notes?—I should think if they were inconvertible notes, it would operate in the same way. If they were convertible notes of the same denomination as those already in use, I should think, probably, they would not circulate, because the number used is proportionate simply to the convenience of people.

4004. The hypothesis is that the Government is issuing these notes, which are undistinguishable in form, appearance, and declaration from the ordinary notes, and are being taken in payment of the demands of the Government?—To carry out the hypothesis so long as they remained in circulation, and were practically inconvertible notes, they would raise the general level of prices.

4005. You would not say in what proportion?—I would not say in what proportion.

4006. (*Chairman.*) Let me take the hypothesis Mr. Courtney has put of the 10 millions which the people have to spend instead of paying it in income tax; would the effect upon prices arise from the fact that the people had so much more to spend upon

the articles they wanted, and, therefore, there would be so much more demand for the articles?—I should think that is the form it would take.

4007. Then would not the extent to which that affected prices depend rather upon the proportion which 10 millions bore to the general spending power of the community than upon the proportion which 10 millions bore to the amount of the currency?—The way, speaking generally, in which an increase in the quantity of currency operates upon prices is by enabling people to increase their demand; they offer more of the currency, having more currency, against the commodities; that is the form it takes, the way in which it works.

4008. (*Sir T. Farrer.*) Is it not the fact that advanced countries use less cash and less bullion in proportion to their transactions than less advanced countries do?—I suppose so.

4009. And that a country at a more advanced period of its commercial dealings will use much less cash in proportion to the volume of its dealings?—Yes, in proportion.

4010. Then, on the one hand, if cash is used for the purpose of commercial dealings, and causes a demand for gold, there is, on the other, some counteracting agency which makes a country require less cash as it advances?—The increase of credit.

4011. The increase of what we ordinarily call credit; there is some such agency as that?—Yes.

4012. (*Chairman.*) Do we know what the relative strength of those two agencies is, or how far they counteract one another?—No, I think not.

4013. As to that increase of credit, may it not be regarded as an increase of the arrangements for setting off one transaction against another, rather than an increase of credit?—Yes, I should think so. If I used the term "credit," I did so as including everything that improves the general organization of industry, indeed, anything that facilitates exchange of any kind.

4014. One object of a currency may be the determining the relative values of articles, may it not? When you say that so many quarters of wheat are worth so many pounds, and so many bags of cotton are worth so many pounds, that determines the relation which the cotton and the wheat bear to one another?—Yes.

4015. And if you have a variety of transactions in a variety of articles, the result may be that you may settle all those transactions without any money passing?—Yes, certainly.

4016. And the more you increase that system both within any country, and internationally, the less would you require currency in the transactions of the world?—Certainly.

4017. And would not that diminish the effect which changes in the volume of the currency produce upon prices?—So far, it would counteract any contraction that might occur undoubtedly, but you would still need reserves and till money in the banks, and a drain upon the banks would affect prices.

4018. (*Sir T. Farrer.*) The word "credit" rather implies a belief on the part of someone that somebody else will be able to pay at a future time, does it not?—Yes, I think that is a good definition.

4019. Therefore, that hardly includes all those forms of arrangement in which merchants at present do without currency, although they express their agreements in the form of promises to pay. When a merchant sells commodities, and obtains a bill or anything else in return for them, what he gets is really something that is an equivalent to an order for other commodities, is it not?—Yes, I suppose so.

4020. And you hardly would call that credit, at least, not in the sense in which I have used the word just now?—It involves an element of belief in the existence of other commodities which he will get in return for commodities that he parts with?—Yes.

4021. (*Mr. Barbour.*) A belief that he will get coin?—I should think a belief that he would get coin, if necessary, would enter in.

4022. (*Sir T. Farrer.*) It may be a latent belief which in certain extreme events he might have to fall back upon, but in the great bulk of transactions the idea of gold never enters into the merchant's mind at all, does it?—I should think at the time of selling, the buying of the other commodities does not enter into the merchant's mind at all, but the gold in some shape, or the representation of the gold—that is "money."

4023. Do you say that when a manufacturer makes cotton goods and sends them out to India, that he thinks of purchasing raw material or of purchasing silver?—I should think, in the first place, that he thinks of increasing his balance at his banker, or something of that kind—of the money he will get. He thinks of everything in terms of money.

4024. (*Chairman.*) But, supposing he draws upon the person in India to whom he sold his goods, and has given his acceptance to the person from whom he has bought the raw material, both those transactions being carried through by means of his banker, he looks to the one to pay for the other, leaving a balance of profit. He never thinks about getting so much coin for the goods, nor of paying so much coin for the goods; he never will see or hear of either, but the result will be that he will find ultimately, at his bankers, the balance of the one over the other?—The only stimulus to trade is profit, and profit is the balance in that way, but still you have a comparison of two transactions, made both of them on a currency basis, and the difference in the result is the profit or loss.

4025. (*Mr. Courtney.*) As matter of fact, a great manufacturer would conduct his business from one year's end to the other, and the only coin he would get from his banker would be coin to pay wages with?—Yes, I should think so.

4026. All his payments for material would be paid through the bank, and all his receipts would be received in bills through the bank?—Yes.

4027. (*Chairman.*) Do you consider that the evil of the existing state of things is not only that arising from the appreciation of gold, but also the evil arising from the depreciation of silver?—Yes, I think that there is a disturbance of international trade as well as this disturbance of contracts caused through the appreciation of gold.

4028. Then will you state what you regard as the evils of the existing state of things. As regards the depreciation of silver, or, assuming it to exist, the appreciation of gold?—Assuming the appreciation of gold to exist, I should think that the evil there comes in through the fact that contracts are made with the element of time; for instance, in the case of agriculture, farms if not actually taken on lease are taken with the idea of a rent fixed for a long time. Then if there is any great fall in general prices, that, of course, operates very prejudicially on the interests of the farmer by the increase in the burden of his fixed charges, while the prices he gets are smaller.

4029. Supposing, with regard to the fixed charges for mortgage, that money is cheaper, might not that more than counterbalance the loss by appreciation? Supposing a man, for example, to borrow a good many years ago at 5 per cent., and he can now borrow at $3\frac{1}{2}$ per cent., even taking it that gold has appreciated, may he not be better off now if he can pay off his old creditor and borrow at $3\frac{1}{2}$ per cent. than if he was paying 5 per cent. without any appreciation of gold?—That might possibly happen, I should think, in some cases, but in the case of the farmer, I do not see how that would operate. His principal burden is rent.

4030. It is not clear, is it, that if money be much cheaper, even though gold is appreciated, the position of the debtor may not be quite as good as it was?—Of course, the rate of interest depends upon different causes from the value of money in the sense of its exchange value. A man might lose, for instance, on the exchange value of the commodities that he sells;

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he might gain by the fall in the rate of interest on the capital that he borrows.

4031. When you are looking at the total position as compared with the previous time, inasmuch as the appreciation of gold, if it exists, at all events has not affected the price of money, the position of a debtor now may not necessarily be worse?—Not necessarily. That is, that so far the fall in the rate of interest might in some cases balance the fall in the price of commodities, but taking the case of mortgages on land, I should think that there the diminution in rents on the part of the landowner is much greater than any difference he might make of a half per cent. in the interest that he pays on those mortgages by renewing them.

4032. Within the last few years a very considerable amount of money that had been borrowed formerly at 5 per cent. now stands at 4, does it not, on the mortgage of land in this country?—I am not able to speak as to the rates in this country of the mortgages, but I think in Scotland the rate has fallen from about 4 per cent. to $3\frac{1}{2}$ per cent. in recent years; but then I should think that the real rental of land had fallen probably from 25 to 30 per cent.

4033. (*Mr. Courtney.*) Of course, a fall from 4 to $3\frac{1}{2}$ per cent. is a fall of $12\frac{1}{2}$ per cent.?—That would be about one-half the fall on the rental.

4034. (*Chairman.*) I gather from your previous answers that you attribute in part the prejudice to the agricultural interest to the increase in the supply of the commodities in which they deal?—The increase in foreign supply, of course, operating on the prices. It would not matter to them how much came in if they could sell their own produce at a good price.

4035. (*Sir T. Farrer.*) The appreciation of gold is the same thing, is it not, as a fall in prices?—Yes, it seems best to use the word in that sense.

4036. But that may arise from two causes. It may arise from something inherent in the gold, or from something inherent in the commodities?—Yes; it may arise from causes primarily affecting the currency or the commodities.

4037. What you have been stating about the evils of appreciation applies only to the former of these, does it not?—Yes, I should think so, because in general any cheapening of commodities (the level otherwise remaining the same), is beneficial on the whole.

4038. And as regards the position of debtor and creditor, how will that operate? Take the case first of the debtor, the mortgagor in this country; he is in no way recompensed, as he takes less by the increased abundance of foreign corn, or to a very small extent?—Only to a small extent as a consumer.

4039. But that is because he produces the very same thing at a higher cost which is produced at a lower cost elsewhere?—Yes, if that is so.

4040. Therefore it is the foreign competition that injures him?—Yes, in that case.

4041. And not the appreciation of gold?—Yes. It is the fall in the price of a particular article; a relative not a general fall.

4042. Then I want to go on to a further case. I admit that he is injured, but I ask you whether that is by reason of anything in the relation between gold and commodities, or by reason of the commodity which he produces, being produced in greater abundance elsewhere?—By the greater cheapness of the commodity under your hypothesis. That cheapness may be due either to improvements in the communication, for instance, between the West of America and this country, or it may be due to the depreciation of silver and exports from India.

4043. I put aside depreciation of silver as a separate cause. Railways in India, the Suez Canal, transport by sea, breaking up of new land in America or India; from all those causes the English landlord suffers by the increased abundance of the commodity he produces, and that on the whole is a benefit to the world if it is a prejudice to the English landowner?—Yes.

4044. And a benefit to England?—Possibly, on balance.

4045. Well, that has been our theory, has it not?—Yes, but the injury to agriculturists must be considered.

4046. Now I want to take the case of a producer of commodities, who is at the same time a borrower, and has to repay the principal or to pay interest upon it in gold which will buy more commodities than it would have bought at the time the loan was made to him?—Yes.

4047. If he has to pay more for his gold by reason of the increased production of the commodities which he produces, then, although he has to pay more, he has more to pay with, has he not? For example: India has borrowed very largely from this country, and has to pay a fixed interest in gold. India is producing, very much more largely than it did, corn, cotton, and other commodities, which it sends to this country, and is importing into this country very largely, and we will assume for the present that the increased production of these commodities is due to increased facility of communication, and, amongst other things, to the railways which have been built by the money borrowed from England; then, although India has more to pay by way of interest, the gold in which she has to pay interest is of more value than when the loan was made. India is better able to pay than she was?—Yes, precisely; it is quite possible.

4048. And that has to be set against any increase in the burden on India by this gold debt?—I certainly think that that is a most important consideration as regards India.

4049. (*Mr. Barbour.*) And suppose simultaneously with the cheapening of production that there had been an increase in the currency, sufficient to keep prices at their old level, the advantage would have all gone to the producer and not to the mortgagee?—Yes, I should think so. That would have been a still greater advantage for India.

4050. (*Sir T. Farrer.*) Therefore to sum it up, if the appreciation of gold or fall in prices arises from something inherent in gold, it alters the relation of debtor and creditor in a different way from the way in which it alters it if the appreciation of gold and the fall in prices arise from the increased abundance in commodities?—Yes, I think so. But I am not sure that I have seized your point. A fall in the prices of a few commodities cannot be properly called an appreciation of gold.

4051. (*Chairman.*) The next point on which I will ask you to make some observations is whether the evil calls for legislative interference?—I say undoubtedly. There is no natural tendency to equilibrium with reference, not only to the appreciation of gold but also to the depreciation of silver.

4052-3. The volume of gold is year by year added to, is it not; it has been down to the present time, very considerably. Several millions a year applicable to coinage have been added to the store of the world. Why, if that is added year by year, should prices fall, supposing the fall arises from there not being a sufficient volume of gold currency?—Because, in the first place, there is a great increase in the amount of work to be done by the gold, through the increase of trade and population. For instance, compare America now with the America of the beginning of the century. America requires an enormous mass of gold compared with what it did at the beginning of the century, and the same with all our colonies, and a number of other countries.

4054-5. Yes, but you must take America compared with five years ago?—But even taking all the great progressive countries over such a short period as five years, I should think that it is quite possible that their effective demand for gold, if prices had remained at the same level, is not met by the additional supply of four or five millions a year, or whatever it may be.

4056. Now, if you take the annual production of

gold and silver according to Tooke and Newmarch, for example, from 1861 to 1865 it is 20,000,000*l.*; from 1866 to 1870 it is 20,000,000*l.* odd; from 1871 to 1875 it is 20,000,000*l.* odd; therefore, you have there a tolerably constant addition annually of 20,000,000*l.* ?

—Yes, roughly speaking.

4057. Now if the trade was expanding largely, and the population increasing as it did during those years, why was not there an appreciation of gold then and prices going down instead of going up as they were? —Well, I should say that on the whole there was a tendency towards appreciation.

4058. But that is the time during which the prices were going up, and the great prosperity was prevailing?—The view of Tooke and Newmarch is that the effects of these gold discoveries were neutralised very much more speedily than is generally supposed; and even according to Jevons's calculation, I believe, on index numbers the depreciation was only about 16 per cent. from 1850 to 1865. I remember that Tooke and Newmarch say, that even in 1857 there was really no great rise in commodities generally, although it is supposed that there was. So I should say that there was even then, in spite of this enormous increase in the production of gold, a tendency, owing to the great increase in population and trade, towards appreciation.

4059. You mean that this steady addition of so many millions a year, would not be enough to keep pace with the increase of trade?—That is my opinion. It is not enough to consider the supply, we must also look to the demand all the world over. There is one other element which I think ought to be taken into account, which is also emphasized very much by Tooke, and that is, the wear and tear of the coinage described in Vol. VI., p. 412. Now the greater the volume of your coinage, so much greater is the absolute loss by wear and tear; so that if your coinage becomes doubled you get double the absolute wear and tear that you got before, and you would require double the supply merely to keep up the volume of coinage.

4060. But if you had a country starting a gold coinage for the first time, like Germany, when their coinage was all new, for some years you would not need much for wear and tear, would you?—Not in that case; but that is an element that has to be taken into account, in considering the future.

4061. I see that according to Sir Hector Hay, whereas from 1861 to 1870 the gold production amounted to 22,000,000*l.*, as nearly as possible, from 1871 to 1875 it went down to 19,000,000*l.*, a slight diminution, but that would cover part of this period of high prices, would it not?—Yes. My own view would be, that there has been a constant tendency to appreciation the whole of this century; that there was a very great depreciation between 1821 and 1841, which is shown by any method of calculation that has been admitted. I think that is generally recognised. This appreciation was continued until the gold discoveries took effect; then these gold discoveries momentarily gave a rise in prices, a depreciation, but this was neutralised much sooner than is generally supposed, and afterwards the appreciation set in again. Well, then there was that great expansion which took place in 1873–74, due to credit causes which disguised the effects of this appreciation, and then as soon as that inflation was over, this appreciation set in again in full force, and it was intensified through the demonetization of silver.

4062. Have you any remedies which you would desire to suggest for the evils to which you have called attention?—The remedy that I propose is conventional bi-metallism, that is, an international agreement between several of the important commercial nations to coin both metals at a fixed ratio.

4063. And you think such a convention would be possible. Would it last, if such a convention were arrived at?—In my opinion, there would be no doubt that the ratio would remain stable under any conditions which are likely to occur, provided the

agreement was made between the principal commercial nations.

4064. You propose that silver should become a legal tender, and be minted at a fixed ratio to gold? —Yes. I think it would be essential that the silver should be minted freely.

4065. What ratio would you propose?—Well, I should propose the ratio of $15\frac{1}{2}$ to 1; but I do not think that it would matter very much what ratio was chosen, provided it were somewhere between $15\frac{1}{2}$ to 1 and 20 to 1. It would not matter as regards the fixity of ratio. Of course, the effects would be different as regards prices and as regards various interests.

4066. You propose $15\frac{1}{2}$ because that is the ratio that did exist in the case of the Latin Union?—That is the ratio at which a large quantity of money is still legal tender to any amount in several countries, and that is the ratio which was kept up practically for several years during this century in spite of the great changes that took place in the production of gold and silver.

4067. It would be a great advantage to the holders of silver at the time, would it not, if you changed its relation from 20 to 1 to $15\frac{1}{2}$ to 1?—Yes, I suppose it would be an advantage to holders of silver if the change took place at all suddenly; but supposing the change did not take place suddenly, and they were to hold back their silver for a long time, losing any interest that it might have gained, it is possible that they would not gain very much.

4068. (*Mr. Courtney.*) How could you prevent the change taking place suddenly when made?—Well, I should imagine that what would happen would be this: as soon as the question began to be considered as practical, and as soon as this country entered into negotiations with other countries, immediately there would be some rise in the price of silver, and as the convention seemed to be more and more possible, and as the results seemed to be more and more favourable to the adoption of this ratio then the price would gradually rise until it approached this ratio, just as in the case of the Government offering to buy up a gas company or a water company or anything of that kind; the shares would gradually rise in price as the rumours gained credence that such was to be the fact.

4069. It would discount the rise?—Yes, and that is one reason why I think the ratio of $15\frac{1}{2}$ to 1 is one which people should look to as the ratio which would be established, because it would be expected that would be the ratio, and that would tend to force up the price to that ratio.

4070. (*Chairman.*) So that you think that it would not result in any rush of persons to get their silver minted, because before the time arrived for their being able to get it minted, silver would go up very nearly to the price?—That is what I imagine would happen.

4071. (*Mr. Birch.*) Do you think that that would be convenient for India, the ratio of $15\frac{1}{2}$ to 1?—Well, I suppose that if a change were made suddenly, so that the change operated to-morrow, that it would dislocate trade altogether for the time being, but then, I should imagine that the rise would be gradual. Any change from the present ratio, the actual market ratio, to any higher ratio, if it were made very suddenly, I should think would dislocate a good many trade operations.

4072. (*Chairman.*) When you had fixed that ratio, you would expect, I understand, only limited fluctuations after that in the comparative value of silver and gold?—After this ratio was fixed, I should not expect any fluctuations in the value. I should suppose that the ratio would really remain stable. You might get in particular places, and, perhaps, at particular times various local and temporary fluctuations. You might get special demands for one metal or the other which would lead possibly to an agio being paid upon one of the metals, but that really would not be a disturbance of the fixed ratio between them, taking the world all

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over. It is possible that the agio at one place might be neutralized by a different agio at another.

4073. You have stated that the remedy that you, would propose would be bi-metallism of that character and that you think that practical. Would you be good enough to state to the Commission what benefits you think would be derived from the introduction of such a system?—In the first place this appreciation of gold would be neutralised to some extent through the greater abundance of the standard money; that is, instead of relying merely upon the supply of gold, you have also the supply of silver to rely upon.

4074. You would add to your currency only so much of the production of the silver of the world as is not now used for coinage purposes, would you not?—Yes, some would still be used for the arts and some would be exported to the east; but as far as the western countries are concerned, a certain amount, at any rate, of the silver newly produced would become standard money, and it would so far act really in the same way, it seems to me, as if gold discoveries were made.

4075. Do you think that this fixed relation between the rupee and the sovereign would tend more to the use and hoarding of gold in India than exists at present?—I am not able to say on what the hoarding of gold in India depends. I have seen it stated that the dearer gold becomes, the more likely people are to hoard it. But I have also seen it stated that the rise in the price of gold makes it more difficult for them to get the gold. I am not in a position to give an opinion as to which operates most. I should think both of them are valid causes.

4076. The gold hoarded in India would not be so much added to the currency, although that is what you would desire to see?—No; I may say I look upon the effects of great discoveries of the precious metals as having been proved to be exceedingly beneficial, and I think that it would have been a great misfortune for the world at large if on the discoveries of silver in the 16th century silver could not have been used as standard currency. In the same way with the gold discoveries about 1850, if the world had taken to using silver as the standard, and not availed itself of gold as currency, I think that there would have been much less expansion of trade than took place; so that I think any discoveries of either of the precious metals, under this system, would act beneficially by increasing the quantity of money and stimulating trade. But I do not think there would be any very great disturbance of prices. I think, as Tooke and Newmarch have shown, the general effect of these discoveries, if you allow the metals to be freely minted, is a great expansion of trade and commerce, and no very great inflation of prices; that you get a tendency towards a rise in price, and this tendency towards a rise in price stimulates trade. Under the present system you get, in the first place, depreciation of silver, and then you get as a consequence a depression of trade.

4077. But why should the depression of trade follow the depreciation of silver?—It follows from the fact of all those exports from silver-using countries being sold at a lower price. Take, for instance, wheat.

4078. If they sell a great deal more of it, and at some profit, though a smaller one, that may be a very good trade, and as good a trade as the other?—For the silver-using country, probably; the effect at first would be a stimulus to the trade of the silver-using country; that I should allow.

4079. (Sir T. Farrer.) You mean, the appreciation of gold produces depression in the gold-using countries? I wish to consider the case of the effects of silver discoveries under bi-metallism as proposed and under existing circumstances?—Under bi-metallism as proposed a great increase in the quantity of silver would act precisely—so long as the ratio was fixed—as the gold would act. You would get all the beneficial effects coming from the great gold discoveries in 1850, and in the 16th century from the silver discoveries. But under the present system, if you get great dis-

coveries of silver, the first effect is a depreciation of the silver; then, as a consequence of this depreciation of the silver, you get all the exports from silver-using countries sold at a lower price. Then that fall in price is reflected to other commodities. For instance, if you get a fall in the price of some great agricultural staple like wheat; well, that immediately induces all the farmers to take to agricultural stock, or roots, or something; that increases the supply of these things beyond the demand for them; so you get the fall in wheat leading to a fall in all agricultural produce.

4080. That is a temporary effect, is it not?—Only temporary; but I mean temporary as opposed to permanent. Temporary may be a long time for practical purposes.

4081. It will only last till silver has gone to the silver-using countries to raise prices again?—Well, I think the ultimate effect would be that some time or other this artificial stimulus to exports from the East, and the corresponding check on imports will cease, and that then the depression which had been felt in western countries would go to the eastern countries. That is what I believe may be the case if this is allowed to go on; that in the end India, which at present gets an artificial stimulus in some ways, will, when silver is sent there and prices move there, feel a corresponding depression to what is now felt here. But it is extremely difficult to forecast the distant future, and I am considering only one cause.

4082. Have you proved that it has felt the stimulus hitherto?—I understand that there are certain kinds of cotton exports from this country to India, certain kinds of cotton goods which are produced now only in India which were formerly exported there, and as regards exports from India, I believe there has been a very great increase in the export of wheat from that country.

4083. Are you aware that taking the whole exports of the two countries together, the increase of exports from England into India has been greater than that of the exports from India to England during this period of the fall in silver?—Yes, I believe there has been a very great increase of the exports into India.

4084. (Chairman.) How would you account for that? Would not you expect that the exports from India would be stimulated, and the imports into India checked?—I should expect that the natural effect of the fall in silver would certainly be to check the importation of commodities into India, but that might be neutralized from other causes; for instance, if there is a corresponding fall of prices on this side, and Manchester manufacturers must sell their goods somewhere, they cannot sell them any better on this side than on the other. Although they get a very low price when it is converted into gold in India, still that may be as well or better than they can sell anywhere else.

4085. (Sir T. Farrer.) That is the appreciation of gold, is it not?—Yes.

4086. (Mr. Barbour.) The gold price of articles imported into India has fallen largely?—Yes, I believe so. The Manchester people really cannot stop their works. As long as they go on producing, if they cannot sell at a profit on this side then they lower their price and sell in India.

4087. (Chairman.) But the price of cotton goods you would expect to go down, would you not, considerably, if the price of cotton went down, and the profit of the manufacturer might remain the same though the value of the goods exported might largely decrease?—No doubt, and one reason the Manchester people have been able to export to India is that there has been a fall in the price of raw cotton, and they have been able to some extent to throw the loss upon the producer of the raw material, but at the present moment I understand there is a tendency to rise in the raw material, and with the fall in the exchange with India the trade is practically stopped, because they cannot do business unless they get cheap material or a rise in exchange.

4088. (Sir T. Farrer.) When did that happen?—

I heard from Manchester only yesterday, that just recently there is a tendency for the raw material to rise, and it was stated that in four or five weeks there had been a very great check on the export trade to India on that account. Profits are already at a minimum, and if the raw material rises, or silver falls further, or both, I should think wages must be lowered, or exports must be seriously checked.

4089. (*Mr. Birch.*) Then the rise in the price of silver would have an exactly contrary effect in India to what it would have here; our manufacturers would prosper but the Indian manufacturers would be prejudiced?—Yes, I suppose that would be the immediate effect.

4090. (*Chairman.*) That would be brought about by the conventional arrangement which you suggest?—The momentary effect no doubt of this conventional arrangement would be prejudicial, I should imagine, to those newly started cotton manufactories in India.

4091. (*Mr. Barbour.*) But if the ratio fixed was the market ratio of the day, Indian industries would escape that, would they not?—Yes, I suppose they would, and, so far as they had any natural advantages, they would not be injured permanently. It would operate like the abolition of a protective duty.

4092. (*Chairman.*) I understand your reason for suggesting the ratio of $15\frac{1}{2}$ to 1; but would there be any impossibility or practical objection to adopting, say, the existing ratio at the time of the change?—I think there would be a difficulty as regards the large quantities of silver held by those other countries who would join the convention at the old rate of $15\frac{1}{2}$ to 1.

4093. (*Mr. Fremantle.*) Then the whole of the United States standard silver currency would have to be recoined if the ratio of $15\frac{1}{2}$ to 1 were adopted?—I believe the ratio there is 16 to 1.

4094. And the adoption of the ratio of $15\frac{1}{2}$ to 1 would involve great re-coinage in this country, would it not?—I think in this country it would be one way out of the difficulty with the half-sovereign.

4095. Do you anticipate that all the present token coinage in this country would be required if there were standard silver coins?—Yes, I should think that it would not make much difference to the token coinage.

4096. You would propose to have the present token coinage, and, in addition, large pieces of standard coin silver?—Yes. I am not able to form an opinion as to the best form the standard silver should take, but I should think it would be best on the analogy of the other nations to make it a double florin, or something of that kind.

4097. (*Chairman.*) Then you think that if the present system continues, that the time will arrive when gold prices will cease to fall, and silver prices begin to rise in the East, and then the stimulus will be exactly the opposite to that which you say exists at present, the stimulus will be to imports into India, and a check on exports from India?—Yes, that is what I should expect. Eventually the depreciated silver will be sent to the East, and raise prices there, and the process of depreciation of silver must stop some time or other.

4098. So that what you suggest is, that though the bi-metallic system would make a change, which at the present moment would be prejudicial to India and beneficial to England, it would prevent a time when the state of things would be reversed?—Yes, and I may put it on more general grounds, that I think that any change in trade that is due merely to a currency disturbance should be neutralized, if possible; that all currency disturbances are evil in themselves; that the great thing we want to get, if we can get it, is stability in the standard as regards the general level of prices; and as regards the countries using different metals, I think that it is very important that we should get stability of ratio.

4099. (*Sir T. Farrer.*) You do not think that the change that you propose would probably make any very great difference in existing prices?—It would

of course be very difficult to say, what would be the immediate effect, because prices depend so much upon credit influences as well, and all kinds of things, but I do not see any reason, as regards the supply and the demand for the metallic currency. I do not see why there should be any great change in the level of prices.

4100. Your object would not be to produce any great alteration in prices, but to produce stability for the future?—Yes, that would be the principal object.

4101. (*Mr. Birch.*) But can you imagine any greater disturbance of our currency than what you propose now?—It never occurred to me as being a great disturbance to the currency of this country.

4102. (*Sir T. Farrer.*) Well, is it not a fact that the transactions of the world are now to a very large extent settled in London, and that they are settled in London upon the basis of the pound sterling?—I am not able to say. I thought, founding upon, I think, something in Goschen's "Foreign Exchanges," that fewer transactions were settled now in London than was the case some years ago; for instance, I thought that formerly, the American trade with the East was largely settled through London, but now it is settled directly with the East; but I am not able to speak of my own knowledge.

4103. At any rate, London is a very great financial centre?—Yes, London is a very great financial centre.

4104. And the pound sterling of the London market is known throughout the world?—Yes.

4105. Then is it not a very considerable change to alter that language, supposing it to be merely the language, the language which the commercial world understands?—They would be able, anybody who wanted gold would be able, to get the gold all the same. I do not for a moment suppose that this country would be deprived of its gold.

4106. They would be able to get the gold, but a pound sterling would mean something different to what it does at present. It would mean either so much gold, or a certain quantity of silver?—Yes, there would be a change in the meaning somewhat.

4107. (*Mr. Barbour.*) Did the pound sterling at one time mean a pound of silver?—The first meaning of the word sterling was in connexion with the silver penny, and the common name of the silver penny was sterling. The pound sterling was a real pound of silver.

4108. (*Mr. Fremantle.*) But the pound sterling all over the world is the sovereign?—The pound sterling at the present time is the sovereign.

4109. Have you ever known in the political or commercial history of the world, any such arrangement as the proposed bi-metallic arrangement?—Well, I think that, perhaps, an analogy might be found in the history of this country, because in early times you find different parts of the country having mints for themselves, and different coins, and certainly you get England and Scotland, for instance, with different coinages, then you find a gradual uniformity introduced. In every nation, with the advance of civilisation, the necessity of uniformity of coinage has been felt.

4110. But what I meant was, whether any agreement of this sort was ever made before?—I suppose the agreement of the Latin Union was to some extent of that nature, but not altogether.

4111. (*Sir T. Farrer.*) I should like to ask you one question further about the effect of the appreciation of gold upon the Eastern trade. You have told us what would be the effect of the depreciation of silver, that is to say, that there would be a flow of silver to the East, and exports from the East would be stimulated. That is, on the hypothesis of a depreciation of silver. But supposing that what has happened now, the divergence between gold and silver, has arisen from appreciation of gold, and not from depreciation of silver, what would be the effect on the trade?—Western prices fall, and, if silver falls in the same proportion, there is no change in the trade, but if silver falls to a less degree—

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4112. But I am taking that hypothesis, that the fall in prices is in gold, then you do not think that in that case, there is any stimulus to the trade from the east?—Not if gold prices fall in exactly the same proportion as silver, but it is very difficult to speak of the Western prices falling in a certain proportion. It is very difficult to get any average of the fall, and of course what is true of the average will not be true of each particular commodity taken.

4113. That is always the difficulty, but I am now taking the hypothesis that the fall that has taken place is in the gold, that is to say, that the gold has become scarce, and that consequently prices have fallen. You do not think that that would have any effect in stimulating the trade from the East?—Certainly not. A fall in prices on this side, unless silver had fallen even more, could not stimulate exports from the East.

4114. And it does seem probable, if the result is due to something inherent either in gold or in silver, that the change is due to something that has happened to gold, rather than to something that has happened to silver. This seems probable from the facts that prices in India have been tolerably steady, that prices in this country have fallen, and that there has not been any abnormal flow of silver to India?—I do not quite follow the question.

4115. The question is, what is the cause of the divergence between gold and silver?—Yes.

4116. That may be due to something that happens to gold or something that happens to silver?—Yes, or both.

4117. On the hypothesis that it is something which happens to silver, that silver becomes more abundant, silver would flow from the East, silver prices would eventually rise, and exports to the East would be stimulated for a time?—Yes, that is if silver flows to the East, and silver prices rise, and silver is not proportionately depreciated.

4118. But on the hypothesis that it is something which happens to gold, then there would be no such stimulus?—Not if it affects silver in the same proportion. But if silver prices remained steady, and gold prices fell, and silver did not fall proportionately, there would be a stimulus. The way the stimulus operates, depends upon the level of silver prices, compared with the level of gold prices, and the ratio of gold to silver. You must consider these three elements.

4119. (*Chairman.*) Under the fixed ratio, your anticipations would be that any discovery of silver would, by adding to the volume of the currency, improve trade?—Yes.

4120. Whereas at present you say that a discovery of silver, by depreciating silver, disturbs trade?—Yes, it dislocates the trade between gold and silver countries at any rate; it makes a great disturbance in the contracts that are made between those countries.

4121. If all countries were gold-using countries, the end to be effected by bi-metallism would not be nearly so important, I gather?—No. If they were all gold-using, so far that would neutralize one of the evils, viz., the variation in the relative value of the standards of the different countries.

4122. And I gather from what you have said that in your view that is the more serious evil?—The other evil, the appreciation, so long as it is gradual, as was the case before this monetary disturbance, I think can be met, and is met, except in a very few cases. Most contracts are after all only made for a comparatively short time, so that this secular appreciation really does not affect trade so much; it is the constant oscillation between the standards of different countries that is a constant disturbance. At the same time I think that a sudden appreciation may be productive of very serious evil; and I think that if an attempt were made to establish general gold mono-metallism, the consequent appreciation would be most disastrous.

4123. Now as regards the ethical propriety of making such a change as the introduction of bi-

metallism, what have you to say?—First of all, I should say that those who have gained by the fall in silver have gained by accident, so that if their accidental gains are taken away or neutralized, I do not see that there is very great injustice done to them. No one anticipated in 1873, and made bargains according to the expectation of this fall in silver. If they have happened to gain by it in any way, and if they would lose by the rise in silver, the loss they would now sustain would only neutralize the accidental gain that they made before, so far.

4124. But so far as bi-metallism affected prices, it would affect the relation of debtor and creditor in the discharge of obligations, would it not?—Yes, so far as it affected prices, I think it would really do so.

4125. Put aside for a moment the depreciation of silver and the relation of silver to gold; assume gold to have become appreciated by natural causes, you would interfere, by means of a conventional or artificial arrangement, and that interference would affect the relation of the parties, who hitherto had only been affected by natural causes?—It would certainly do so, but the general results, I maintain, would be much greater stability in the standard. At present what we have to expect is a constant appreciation, which is a constant disturbance of the relations of debtor and creditor.

4126. Still your proposal, if carried out, would not only stop that, it would to a certain extent reverse it?—To a certain extent it would reverse it, and neutralize it; so far, I should think, it would be beneficial. For instance, I should say that for the next five-and-twenty years, if this plan were adopted, there would be a less disturbance of the relation of debtors and creditors than if the present appreciation of gold were allowed to go on.

4127. Still, for the moment I understand your expectation to be that prices would rise?—To a certain extent.

4128. And, therefore, that it would not merely stop the change, prevent the change going on, that had been going on, but it would reverse the process and make a change in the opposite direction?—But I should not anticipate any very great rise in prices.

4129. (*Mr. Barbour.*) Up to 1873 there was a fixed ratio between gold and silver at 15½ to 1?—Yes.

4130. And all contracts up to 1873 were made at a time when that fixed ratio prevailed?—Yes.

4131. So that if now we went back to the old ratio, we should simply be going back to the conditions that prevailed when those contracts were made?—Yes, certainly.

4132. And the special disturbance would only be in regard to contracts entered into since 1873?—Yes.

4133. (*Mr. Fremantle.*) That ratio did not prevail in this country, did it?—Of course, this country was not bi-metallic.

4134. (*Mr. Chaplin.*) With regard to arrangements entered into before 1873, I understand that the parties hitherto have not been affected by natural causes only. Were they not affected by the legislation which demonetized silver in Germany and elsewhere?—After 1873, yes.

4135. (*Sir T. Farrer.*) But not by our legislation?—Not by our legislation but from our want of legislation.

4136. (*Mr. Chaplin.*) And if your proposition was adopted you would be simply restoring the old state of things existing before 1873, which was disturbed by subsequent legislation?—Yes, practically.

4137. (*Chairman.*) That is by the legislation of a foreign state?—That is quite true, but then these foreign states offered, as far as I can gather, to enter into an agreement with this country before and this country refused.

4138. (*Mr. Fremantle.*) But it was a system that had been originally established by legislation?—Yes, but then I should maintain that all the coinage of

the world depends upon legislation; it is altogether artificial.

4139. (*Chairman.*) You would, I suppose, confine your view to the currency; you would not say as a general proposition that we had a right to interfere by legislation to change a condition of things in all cases in which people had been affected by the legislation of foreign countries?—Supposing that in any way the real meaning of contracts was disturbed, and supposing by legislation we could bring back the old meaning, the meaning which was the real intention of the parties at the time the contracts were made, then I should approve of it, but I do not suppose generally you could do it. Your legislation would probably disturb other interests. It is only in cases like these, where you get serious evils on the one side and considerable benefit on the other, that it is worth while attempting to get a legislative remedy, but I would certainly theoretically approve of the legislative remedy, though I should doubt practically if it could be carried out in most cases. As an example, I may say that every commercial treaty takes account of foreign legislation.

4140. (*Mr. Chaplin.*) You do not propose anything which would directly interfere with contracts themselves?—No, nothing at all. All that we propose to do, is to deal with certain circumstances by which possibly those contracts might be affected.

4141. (*Chairman.*) But I understand you to propose that a person now entitled to receive so much gold, should be bound to receive so much silver, that was part of your proposition, was it not?—But the bargains that are made, I presume, are for so many pounds, they are not definitely for so much gold, they are for so many pounds sterling.

4142. But as the law stands now, he is entitled to demand one pound sterling in gold?—Supposing a man wanted to get the gold to make a gold watch of, and you gave him so much silver, and told him to make a silver watch, that would be a disturbance of contracts really; but so far as it concerned merely the money, he would have no difficulty in exchanging the silver for the gold, he could get it exchanged at any money-changer's. I cannot see that there would be any injury inflicted.

4143. That would depend on the convention embracing all nations; otherwise, if you give him gold he may use it to bring goods from abroad under a conventional arrangement, which holds good in his own country, but does not hold good elsewhere?—I think it would be necessary to have the principal nations agreeing on this convention, but then there would be no difficulty in anyone getting gold in this country to send abroad if it were required, or in any of the other countries.

4144. (*Sir T. Farrer.*) But he would get less commodities for his gold?—It depends on what the rise in prices was.

4145. You do not think it would effect any great rise in prices?—I cannot say what the momentary effect would be, because it is impossible to anticipate what the effect would be of speculation.

4146. You do not think with Mr. Manning in his message to Congress, that it would raise the price of wheat 25 per cent. in this country?—It is difficult to say about the price of wheat, because of the Indian supply; but as regards general prices, I cannot think that there would be a rise in general prices on this account of 25 per cent., that is, apart from speculative influences.

4147. Indian wheat is the very wheat which is complained of by Mr. Secretary Manning as having lowered the price of European and American wheat, and he attributes it all to the divergence of gold from silver. You do not think tying gold and silver again would raise the price of English and American wheat by 25 per cent.?—The price of wheat in the London market at any time and also over a term of years depends upon a number of causes affecting the demand and the supply, and I have not sufficient statistical data to say accurately how far this particular

cause of the depreciation of silver acts. Perhaps, however, it may be useful to the Commission, as suggesting lines of inquiry, if I state the principles on which, according to the theory generally accepted by English economists, the price of wheat is determined over a term of years sufficiently long to allow the supply to be adjusted to the effective demand. The point is, that wheat, though produced in different places at different costs, sells (allowance being made for quality) at the same price in the same market. But no portion of the supply will be forthcoming over a term of years unless it yields to the producer his expenses and minimum profit. Accordingly, if the price falls, the producer least favourably situated will withdraw his supply, and this withdrawal will last so long as prices remain low. This is the reason why the area under wheat in England has declined. Farmers will not year after year grow wheat at a loss. But so long as cessation of supply from the more expensive areas is met by supplies from the less expensive areas, there will be no rise in price, and if the new supplies exceed the old, the price will continue to fall, and more of the old supplies will be withdrawn. This substitution of new for old supplies will go on until the former are no longer able to meet the effective demand, and then the fall in price will cease, and the contraction of the old wheat area will cease also. Thus the conclusion is arrived at that the normal or stable price of wheat will be such that the part of the supply (necessary to meet the effective demand) which is produced under most unfavourable circumstances will determine the price, and the producers in a better position gain, or are able to pay "economic" rent. Thus the cheapest supply determines how much of the more costly supply will be needed, and this again determines the price, and thus it is only indirectly (through limitation) that the cheapest supply determines the price. Now, to apply these principles to the present case, it is quite clear that India can only supply a small part of the total required in the West. But so long as the additional Indian supply exceeds the deficiency of the West, through the contraction of cultivation, the price of wheat will for the time be too low to be profitable to the least favoured western producer. That seems to be the case at present. Owing to the fall in silver, Indian wheat can be thrown on the market so much more cheaply than it could be otherwise, and until the other supplies are diminished, the price will remain low. Now, it seems to me probable, if the price of silver rose to its old level, wheat could not be profitably exported from India until prices rose in a corresponding degree. For India, being a silver country, the price of wheat there is independent of the relative value of gold and silver. An exporter to England, at present, will give the Indian price in silver, and he can buy his silver for less gold, and thus competition will lower the price. If the price of silver rose, the exporter from India must get more gold. Thus, a rise in silver would, on this view, raise the price of wheat to a corresponding degree. But in this case the same quantity of Indian wheat would be sent as before, and India would not suffer. The rise also would only facilitate and hasten a necessary adjustment. If the contraction in the West, and the expansion in India continues, then eventually silver must be sent to India and prices will rise there. Besides, eventually the price must be such as to be profitable to the great mass of western producers. Suppose, however, that the fall in wheat is really due to causes affecting the nominal or real cost in gold-using countries, and that, owing to a fall in wages, freights, &c., America and other countries can profitably send wheat to Europe at the present price; then although, a rise in the price of silver might check exports from India, the deficiency might be met without any rise in price, or only a momentary rise. In this case the restoration of silver would make a difference to India, but so far not to the West. That, however, is only considering the effects of the recovery from depreciation. So far as the restoration of silver met the apprecia-

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tion of gold, it would raise the price of wheat as it did other things, and if it is mainly in the undeveloped countries that the pressure has been felt, the rise in wheat might be greater. Thus, on the whole, I should expect some rise in the price as the result of the adoption of bi-metallic, and if it is the Indian supply which is the chief cause of the fall, then Mr. Manning's reasoning seems correct.

4148. (*Chairman.*) There is a very large quantity of Chilian wheat imported, is there not? In Chili there is a silver basis, but they have a depreciated currency?—Yes, I believe so.

4149. Well, even if you had your bi-metallic currency, that country would still be left with its depreciated paper currency, would it not?—Yes.

4150. And having that depreciated paper currency, would be likely to export wheat at a cheaper rate?—Yes. That would happen, I presume, if the currency were depreciated as regards gold and silver, and if the wages, and so on, had not risen in the country in proportion to the depreciation, then there would be that stimulus; but it is possible that the depreciation might have affected the wages, and I am not able to say.

4151. Of course, if that stimulus existed, that would tend to keep down, not only the price of Chilian wheat, but the price of all wheat. The extent to which it succeeded in so doing would depend on the relation which its volume bore to the total volume of the imported wheat?—I think the answer I have just given about India would apply essentially to Chili.

4152. (*Sir T. Farrer.*) But any depreciation of that sort would have been only a temporary one. You do not mean to say that any country can, by depreciating its currency, throw all its commodities upon foreign markets?—It would depend upon how long a time it took before the wages and the general elements in the cost of production responded to this depreciation, but I presume, until they did respond, that it would do so.

4153. Yes, it would be during the period during which wholesale prices had risen, and wages had not risen in the same proportion?—Yes, precisely, but I suppose that could only be temporary.

4154. (*Chairman.*) Then you have said that you see no ethical objection to the change, because those who have gained by the fall have gained by accident, and that the injury would be temporary and the benefit permanent. What further have you to say?—Then I say, Government has as much right to adopt this system in the public interest as to convert the national debt (if possible), or to repeal existing tariffs (as in the case of the corn laws), or to refuse for the future to enforce contracts discovered to be against the public interest. It is universally acknowledged that every Government has the right of changing its coinage as it finds expedient, and all contracts must be assumed to have been made subject to this risk, just as property is bought and sold, subject to the risk of future taxation. Then again, the real meaning of a pound sterling is its exchange value. No one wants the gold itself (except as a commodity). But the exchange value is subject to constant fluctuation, and the adoption of bi-metallism would on the whole neutralise the effect of recent changes, and prevent future disturbances; that is, it would lead to greater stability of value, and that is really what every one requires in the pound sterling. It is in one sense a certain definite amount of gold, but when you come to look into it, the only reason for its being a certain amount of gold is, that you suppose that it would give you greater stability of value than any other substance.

4155. You are regarding the pound sterling as a measure for commodities?—As a measure of value and as a standard for deferred payments, especially as a standard for deferred payments, as distinct, that is, from a circulating medium.

4156. (*Sir T. Farrer.*) The effect of a depreciation of silver is, I think you say, to give the Indian producer an advantage, because the prices rise, and he

only pays the same wages to his servants; wages do not rise as fast as prices rise?—The Indian producer, if he can obtain through the depreciation of silver, more silver, and if at the same time the wages he pays in silver remain the same, will so far gain.

4157. In the same way the English producer, whether of wheat or of cotton, suffers in the case of the appreciation of gold, because prices fall more quickly than wages do?—Yes, that might happen.

4158. Consequently in the case of the appreciation of gold the sufferer has been the producer, the capitalist, the employer until wages fell?—Yes.

4159. There is an intermediate time during which the workman or the labourer has the advantage of the old wages, and in which he has also the advantage of the cheap commodities?—Yes, that is a general principle, admissible under certain conditions.

4160. And the producer, therefore, suffers by his prices and his profits falling, while his expenses and wages do not decrease?—Yes.

4161. Then the immediate result of an alteration by which you raise the prices again would be to raise the prices to the producer, without raising the wages of the labourer for some time?—Yes, but I should say that when I stated that that was a general principle I should only admit it with certain very important qualifications. It is one element that has to be considered.

4162. I am only speaking of it in the broadest way, but that is the way in which the English producer is placed at a disadvantage as compared with the Indian producer, is it not?—Yes, it is through that, no doubt.

4163. Very well, then, if you reverse the process, you raise the prices before you raise wages?—Just so.

4164. And supposing the commodities which the labourer purchases before his wages rise are affected, he suffers?—Yes, so far.

4165. The capitalist suffers by the appreciation of gold; by the depreciation of gold the labourer suffers?—Yes, that is so far as the general principle goes. You understand, I only admit that with very great qualifications. In the first place, there is the constant tendency on the part of the capitalist who has lost his profit to reduce wages. He tries to reduce wages, and as a consequence there is greater irregularity of employment than would otherwise be the case. There is not anything like the amount of enterprise, embarking in new undertakings, and so on, so that on the whole I think it is very possible, although wages are quoted on the same level, that, taking the real income of the labouring classes, they have not gained. Then another qualification, which I think of the very greatest importance, is that we assume that retail prices follow wholesale prices, but I should think, as matter of fact, the middleman takes good care that they do not follow wholesale prices. That is certainly the case as regards the middle classes, I know from my own experience, and with the working classes I should think with the exception of one or two articles it is probably still more the case.

4166. Has not there been an immense improvement in that respect so far as the working classes are concerned in many districts in England since the establishment of co-operative stores?—I have no doubt that must have operated; but then that seems to me to point also to the fact that the middleman must have been doing extremely good business to give such encouragement to these co-operative stores.

4167. (*Mr. Chaplin.*) In reference to the question that Sir T. Farrer put to you about wages, and also to your statement of the evils which the present system has inflicted on agriculture, is it within your knowledge that the wages of labour, especially in the agricultural districts, have already fallen enormously, in some instances as much as one-third?—I was not aware, as regards agriculture, that wages had already fallen so much. I was rather under the impression that they had not fallen so much as one would have expected.

4168. (*Sir T. Farrer.*) To whatever extent wages have fallen in proportion to wholesale prices, to that extent the producer is not injured by the appreciation of gold?—Supposing wages have fallen in equal proportion, then so far he would not be injured.

4169. May I not sum up your opinion on the whole in this way: that in the case of an appreciation of gold the labourer benefits, to a certain extent, by retaining his wages at the old rate after prices have fallen, and the manufacturer suffers to the same extent because his profits are reduced, but that that is

neutralised very much by the fact that this fall in profits prevents the manufacturer from carrying on as much business as he otherwise would have done?—Yes.

4170. But, on the other hand, if you reverse the process, the labourer suffers in a converse way and the manufacturer gains, but that that gain is neutralised because the high prices induce the manufacturer to go on with greater spirit and do more work; is that a fair representation?—Yes, I think so, taking the cause which you have isolated.

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The witness withdrew.

Adjourned till Friday.

Eighteenth Day.

Friday, 6th May 1887.

PRESENT :

THE RIGHT HON. LORD HERSCHELL, the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.
MR. J. W. BIRCH.
MR. H. CHAPLIN, M.P.
SIR JOHN LUBBOCK, BART., M.P.

MR. W. H. HOULDSWORTH, M.P.
MR. C. W. FREMANTLE, C.B.
SIR T. H. FARRER, BART.
MR. L. COURTNEY, M.P., and

MR. GEO. H. MURRAY, *Secretary.*

Mr. H. R. GRENFELL was called and examined.

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4171. (*The Chairman.*) You are a director of the Bank of England?—Yes, I am.

4172. And you were Governor in the year of the last Monetary Conference in 1881 in Paris?—Yes, and I conducted so much of the negotiations as took place between the Bank of England and the Government at that time.

4173. I believe you reprinted Lord Liverpool's work on the coins of the realm?—In the previous year 1880, when I was Deputy Governor, Mr. Birch being Governor, we reprinted and republished that book, which was then out of print; and in the course of that work, I was led to the study of the question of the standard of value.

4174. Now with reference to the standard of value in relation to Lord Liverpool's work, what observation have you to make?—Lord Liverpool's work was on the coins of the realm. All works on the coins of the realm would necessarily involve a discussion of the standard. Lord Liverpool wrote before the French Mint prices were settled. The double standard existed in England up to the suspension of cash payments, in the sense that the word "standard" is used in the present controversy, but as the unlimited coinage of silver had ceased before the suspension, it is asserted by many writers that the double standard did not exist in England up to that date. The Act of Parliament of 1797, limiting the coinage of silver, expressly recites and re-enacts the previous statutes giving silver unlimited legal tender by weight at a fixed ratio.

4175. (*Mr. Courtney.*) What do you mean exactly by your statement that Lord Liverpool wrote before the French Mint prices were settled?—The date of the French Mint Law is 1803. It is true that Lord Liverpool published in 1805, but he wrote in 1797. He was ill for a long time, as you find in the preface to the work.

4176. But what do you mean by Mint prices?—"Mint prices" is the expression used by most of the old economical writers and is to be found in the Bullion Report of 1810. It means the price or prices which the mints are bound to give for one, either, or both of the precious metals according to the standard of the place where the mint is.

4177. (*The Chairman.*) You say the double standard existed in England up to the suspension of cash payments in the sense that the word "standard" is used in the present controversy; in what sense are you using "standard" there?—Well, practically, the unlimited legal tender, irrespective of whether it is coin or bullion of either, or of both metals, at a fixed ratio.

4178. Was there a fixed ratio in England at the suspension of cash payments?—Yes, I think you will find it is so. It is advisable to lay down the meaning of the words "standard of value," that is, to define whether the double standard would mean the existence of a circulation of the two metals in coin at the same moment or the legal tender of either metal at a fixed ratio whatever the circulation. Those in favour of the double standard assert that it existed in the latter sense in England up to 1797, and in France from 1803 to 1873. I understand Mr. Giffen to dispute both of these facts; in the case of France, on the ground that the two metals did not circulate side by side until after the gold discoveries say in 1850.

4179. (*Mr. Birch.*) I have never understood Mr. Giffen to deny that a 20-franc piece in gold would buy in France exactly the same as four silver pieces of 5 francs each; that they circulated side by side; but what happened was this, that at certain periods there was a great scarcity of gold, and at other periods there was a great scarcity of silver, and that at times the one commanded an agio upon the other; he never said that they did not circulate perfectly in France,

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and were not equally recognised there as a standard in purchasing power?—If I understand your question correctly you make Mr. Giffen say that gold and silver circulated side by side, and that at certain periods there was a great scarcity of gold, and at certain other periods a great scarcity of silver, that is, that they did not circulate side by side. Mr. Giffen could hardly have made such an assertion. At any rate if he did I was quoting from something else that he said.

4180. (*Mr. Courtney.*) Is not that simply a question of historical fact?—His statement is that before 1847 France was a silver-using country, and there was no introduction of gold there displacing silver or of silver displacing gold, so that it could not operate as a parachute. He says it could not, he does not say it did not. As matter of fact, the price would show that for some reason or other the agio scarcely altered.

4181. In point of fact, there is no difference of opinion as to its having been a silver-using country?—The difference of opinion is that Mr. Giffen states that the double standard could not have served as a parachute to prevent a fall of silver, whereas in 1850 it did so serve to diminish the fall of gold. My point is that in the one case he states an historical fact, and in the other he only states a hypothetical one, or rather as matter of opinion that it could not have done, but here the list of the relative prices of gold and silver shows that although there was a slight variation, as a matter of fact during the whole 70 years they scarcely changed.

4181a. His argument, as I understand it, would be this, the law of France operated as a parachute after the gold discoveries in California and Australia, because it permitted the substitution of gold for silver in the currency of France?—Yes.

4182. It did not operate, though it might under certain circumstances have operated, in the same way, because the circulation was exclusively silver, and there was no substitution of gold for silver, or of silver for gold; it remained continuously a circulation of one metal only?—In one case it is a statement of historical fact and in the other it is Mr. Giffen's opinion that it could not have done certain things. He does not say it did not; he says it could not.

4183. (*Mr. Barbour.*) Assuming that the coin in actual daily use as currency was silver, is there evidence, conclusive or presumptive, to show that there was no gold in France?—I have every reason to believe that there was gold at all times in France. I am not an authority on that subject. I would rather not be considered to be.

4183a. (*Mr. Birch.*) Have you read Baron Rothschild's evidence before the Committee of 1832, with reference to gold in France, in which he says (Q. 4835) "gold is merchandise in France"; and, in reply to various questions, dwells upon the importance of gold in time of war, and the premium he had paid on the purchase of gold for different Governments?—No, I have not read it.

4184. (*Mr. Courtney.*) There is no doubt there was gold, but whether it was practically circulating, or a commodity or merchandise, as Baron Rothschild says, of course is a question of fact?—It is admitted that before 1850, there was little gold, and that it generally bore a slight agio. The agio, however, in no way betokened a cessation of the double standard, because those determined to have gold and asking for it must have been creditors, not debtors, and the debtor under the double standard has the right to choose the metal in which he pays.

4185. I would only say those determined to have gold, and asking for it, might have been as determined as they liked, but they could not have got it unless the other side chose?—No, but they could get it if they paid for it. I now go back to the "Standard." Lord Liverpool's doctrine with regard to it was founded on the assertions of Petty, Locke, and Harris, that the chief coin in use, and measure of property, could be only of one metal. Having adopted that principle he had to choose his metal. The chief coin

in use in England was gold, he attributed that fact to the affluence and great commercial position of England, whereas the truth was that it was owing to gold having been over-valued in England from 1717 to 1797.

4186. (*The Chairman.*) Is that last your view?—That last is generally acknowledged now. It was the first Lord Ashburton's view too. It is not my view alone. I do not think anybody disputes it now.

4187. (*Sir T. Farrer.*) The question arises, does it not, how it first came to be over-valued?—I date from Sir Isaac Newton's time; that is an historical fact.

4188. But previous to Sir Isaac Newton, Lord Liverpool says it distinctly became over-valued by the action of the people, and not by the action of the Government?—I do not know what "the action of the people" means. To return to Lord Liverpool, with the views above cited he naturally chose gold. There is not a word in his treatise showing the equilibratory action of the double standard which was perceived by Sismondi in 1819, and which is described by many of the leading economists, both monometallic and bimetallic, of the present day. I do not think there is a word about it in the reasons for the original Act in 1803. The first place I found it in is in Sismondi.

4189. One question with regard to the law of 1803. I think the proposer of that law always contemplated future changes in the ratio according to the market value of the two metals?—It is possible. Lord Liverpool's idea of a "standard" was almost synonymous with "chief coin in use." The Bullion Committee of 1810 seems to have adopted that idea, as did Sir Robert Peel, when he brought in his Gold Standard Bill in 1816, and appealed to Parliament to return to the "ancient standard of the realm," which was only done in the sense of returning to the standard as shown by the "chief coin in use," namely, gold.

4190. (*Sir John Lubbock.*) You say that before 1850 in France those determined to have gold and asking for it must have been creditors and not debtors. I do not quite follow your argument there?—I should have said, perhaps, those who have a right to have money and were determined to have it in gold.

4191. Creditors had no right as such to have gold?—No, they had not; those who had a right to have money of some kind, and wished to have gold, could get it if they chose to pay for it.

4192. They could not get it because they were creditors, since the debtor had a right to pay them in silver if he chose?—Yes.

4193. No doubt they could get gold by paying for it, but it was not because they were creditors. That gave them no right to gold?—No, quite so. Those who had a right to have money and wished to have gold must have been creditors, not debtors.

4194. A debtor, it is true, would have no right to receive one or the other, but a creditor of course would prefer to have the more valuable metal, but he would have no right to obtain it?—I can only repeat that the creditor who had some money to be paid to him, and was determined to have gold, of course under a double standard law could not have any right to it, and therefore he would have to pay an agio.

4195. (*Mr. Fremantle.*) It is only the same thing as saying that he might get the commodity in the market by paying for it?—Yes, quite so.

4196. (*Sir T. Farrer.*) And he would have to pay for it?—He would have to pay for it.

4197. Is not your meaning that Lord Liverpool and Sir Robert Peel had not in view when they settled our present law, the double ratio, bimetalism in its present sense?—What they had in view was the regulation of the coinage founded upon what they believed to have been the Standard "de facto," omitting all reference to what was the Standard "de jure."

4198. And that therefore their authority is not to be quoted as against what is now proposed by modern bimetalists?—Yes, but I do not pledge myself to the assertion that Sir Robert Peel never discussed it, because in 1844 he distinctly mentioned the bimetallic

system as being in accordance with the metallic standard. I must guard myself from saying that he never considered it at all, because he did, but not, I think, as far back as 1819.

4199. (*The Chairman.*) Will you now proceed to your next point?—The next point is an extract from Mr. Fremantle's report dated 2nd December, 1881, on the Monetary Conference of that year at Paris:—“It has been the policy of this country to emancipate commercial transactions as far as possible from legal control, and to impose no unnecessary restrictions upon the interchange of commodities. To fix the relative value of gold and silver by law would be to enter into a course directly at variance with this principle, and would be regarded as an arbitrary interference with a natural law.” The words contained in the above paragraph are deliberately adopted by Her Majesty's Treasury, in their letter to the India Office, dated 31st of May 1886. The paragraph seems to me to contain two propositions:—I. That the fixing the value of silver told in gold, and *vice versa*, is contrary to the doctrines of free trade. II. That it is against nature. I venture to submit that it has nothing to do with free trade or protection. Very little silver is produced in England: no powerful interest in England would gain, in the sense of protection to silver, by the change. In America, where alone the silver mining interest is of positive importance, it is of no consequence relatively to that of other producing interests. If it be said that the object is so far similar to that of protection in that it would raise prices, I can only point out that it could only raise prices on the hypothesis that they have fallen in consequence of a resort to the general gold standard by the greater nations in the world. If prices (as I understand is now contended) have not fallen from that cause, then it is to be presumed by parity of reasoning that they would not rise. The effect of these changes of standard on the general range of prices, cannot be to raise and depress them, and not to raise and depress them.

4200. I understand your point there to be that if it could be proved that prices are not generally affected by the present state of things, that is, depressed by the appreciation of gold, the result of the adoption of the double standard would not be to raise prices?—Yes, that if they reduce in the one case they would raise in the other.

4201. (*Mr. Chaplin.*) Do I understand that in your opinion the effect of the adoption of bimetallism would be not to raise prices at all?—No; all I say is if the changes in the standard in the one direction have not depressed prices, that the changes in the contrary direction would not raise them.

4202. (*The Chairman.*) On the point whether it has depressed prices you have made no assertion?—I have elsewhere, but at this point I make no such assertion.

4203. (*Mr. Courtney.*) What is the meaning of your statement that “In America, where alone the silver mining interest is of positive importance, it is of no consequence relatively to that of other producing interests”?—The mining interest is of no consequence in proportion to that of other producing interests.

4204. You mean it is relatively insignificant?—Yes.

4205. (*Sir T. Farrer.*) You mean that it has no power?—I should not be stating the truth in saying that it has no power whatever, but I maintain that the power of the general producing interest is infinitely greater, and that the parties who are mostly interested in these propositions for change are the general agricultural and producing interests.

4206. (*Mr. Courtney.*) You attribute the action taken by the Legislature in the United States, not to the importance of the silver producing interests, and the political power exercised by them, but to some wider causes?—I have had a great deal of evidence tending to justify my assertion.

4207. But do you consider that the action taken by the United States Congress was or was not due to the political influence of the silver-mining interest?—Yes, I could safely say that I believe it was due to the agitation in favour of what was called “the dollar of our fathers,” throughout the country among all the producers.

4208. Producers of silver?—No, producers of corn, and cattle, and everything, all the producers.

4209. (*Sir T. Farrer.*) The west and south against the east?—Yes.

4210. (*Mr. Fremantle.*) Was that so, do you think, at the time that the Bland Bill was passed?—No question about it.

4211. You do not think that is simply a development of later years?—No.

4212. But surely in the discussions on the Bland Bill the senators and representatives who took the most prominent part were those who represented silver-producing States?—I have been given the names of some of the principal supporters of what was called the Bland Bill. Messrs. Hill and Jones represented Colorado and Nevada, the only states then producing silver. Mr. Alison came from Iowa, an agricultural state. Mr. Warner from Ohio, which produces a little coal. Mr. Bland from Missouri, where there is little silver, and Mr. Regan from Texas, which is agricultural.

4213. You stated, in calling attention to the extract from the report on the Monetary Conference at Paris in 1881, that the statement made inferred, that to fix the value of gold in relation to silver, and *vice versa*, is contrary to the doctrines of free trade; but the doctrines of free trade are not specifically mentioned, are they, in the report?—No.

4214. And the only statement made in the report is that to fix a relative value would be to enter upon a course at variance with the principle which had guided this country of late years, by fixing arbitrary values upon commodities. That is the contention. These are the words. “It has been the policy of this country to emancipate commercial transactions as far as possible from legal control, and to impose no unnecessary restrictions upon the interchange of commodities”?—I understand that that means free trade. If it does not, of course the whole argument falls to the ground.

4215. Free trade is a very wide expression, and may signify a great many things. The Report says, and that I think you will allow, that it is contrary to the policy of late years to impose unnecessary restrictions upon the interchange of commodities. That is all?—I understand that to be free trade.

4216. I hardly know what “free trade” means in that sense?—I thought free trade meant that there would be no protective duties levied. If you meant something else, namely, the doctrine of “laissez faire,” you may have been quite right in saying that it had been, up to 1881, when that paragraph was written, “the policy of the country;” but I am not now talking of your report, I am speaking of the Treasury letter which adopted your words. It is impossible that in 1886 the Treasury could have meant that “laissez faire” was then the policy of the country.

4217. (*Sir T. Farrer.*) Does it not mean the avoiding of fixing values by law?—But nobody ever did fix values by law.

4218. (*Mr. Fremantle.*) Surely the proposal is to fix the relative values of gold and silver by law?—That would be the effect of the proposal, but that is not what the bimetallic proposal would express.

4219. The actual effect would be, would it not, that the relative values of gold and silver would be fixed by law?—We assert that it did so, but that is the point in dispute. We assert that the ratio was constant till the law was changed, but that is the point disputed by some.

4220. (*Mr. Chaplin.*) I understand the statement to be this, that the policy of this country up till now has been to impose no unnecessary restrictions upon

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the interchange of commodities, and that to fix the relative value of gold and silver by law would be to enter into a course directly at variance with this principle; but what I want to ask you is this, do I understand you to admit that even supposing this bimetallic principle was adopted, would that in your opinion be an unnecessary restriction upon the interchange of commodities?—The answer to that question seems to me to be that it would be a relief from an unnecessary restriction on the interchange of commodities.

4221. (*Mr. Barbour.*) Under a bimetallic system is a man allowed to sell his silver for as much gold as he can get for it, or his gold for as much silver as he can get?—Certainly.

4222. (*Mr. Fremantle.*) Then you would contend that the selection of gold as a standard of value is in itself an interference with free trade?—It is an interference with free trade in the same way as bimetallicism. If one is the other is.

4223. What other course would be possible in a country if it did not fix a standard of value?—Then you get barter.

4224. And therefore it is necessary to fix a standard of value?—Yes.

4225. Does law in the country do more than say that if a bargain is made between two persons for a pound, the debtor is to pay to the creditor gold of a certain weight and fineness?—That is all.

4226. (*The Chairman.*) It does not do more than the Weights and Measures Act does with regard to other things?—Precisely.

4227. (*Mr. Fremantle.*) Therefore that is as little interference as possible with the right of people to make bargains between themselves?—It is a very great interference; I do not know whether it is as little as possible.

4228. Can you suggest any less interference?—I am in favour of a standard of value, of course. Many people have wished for all sorts of standards. Some people have wished for corn.

4229. But is it not your opinion that that is a less interference than any other?—It is neither more nor less than conferring the same thing as on silver; I do not see the slightest difference.

4230. Then you see no difference between such an enactment as we were speaking of just now and an enactment which obliges the debtor to take either a certain weight of gold or a certain weight of silver, whether he likes it or not?—What I say is that we must begin with some point. In this case silver and gold are both of them used as money in different parts of the world, and that is the starting point, and as they are both used as money, silver in one set of places, and gold in another, we have to start with that fact. The whole question is whether it is wiser to enact these laws in one place for silver and another for gold, or whether to offer each place the alternative of taking whichever people will bring to them of either metal.

4231. (*The Chairman.*) Would you allow, under the bimetallic system, a debtor and creditor to contract that the payments should be made in one or other of the precious metals?—Of course, you might contract to pay in sugar or anything else if you like to make the contract.

4232. You would not forbid that?—You could not forbid it.

4233. (*Mr. Fremantle.*) Could this bimetallic arrangement be set aside whenever individuals chose?—In the same way as you may now set aside your monometallic law by making a contract to pay in pig iron, cotton, or anything else.

4234. What would be the meaning of the bimetallic arrangement unless you were compelled to take $15\frac{1}{2}$ ounces of silver for one of gold?—It depends upon whether you have written in a contract that you owe 500*l.* or so much sugar, cotton, or pig iron. If you have 500*l.* against you, you may get rid of that debt under the bi-metallic law, unless you have

contracted for something else, by the payment of gold or silver.

4235. Then there is to be no obligation to take $15\frac{1}{2}$ ounces of silver when there has been an agreement to pay so many pounds?—Certainly there would be, if you had contracted in pounds, but if you had contracted in gold it would be another thing; it depends on whether your contract is in gold, or pounds sterling, or francs, or rupees.

4235*a.* (*The Chairman.*) If a bill were drawn for 500*l.* in gold and accepted, the obligation would be to pay in gold. If it were 500*l.*, without mentioning gold, the debtor might pay in gold or silver?—Yes, and it is known that there are places where bills are drawn in that form, where a debtor is obliged to pay metal in some places, and something else, according to the currency of the place, in another.

4236. Might not that interfere very much with the operation of the bimetallic system in a country where you have long had a gold standard only, and where at the time of your promulgating your law silver bore a different ratio to that which you have fixed by law? Would there not be a danger of the system being to some extent, or a considerable extent, interfered with by contracts of that description?—I understand that at this moment in New York people may pay their bills of exchange if they like, in silver coins, but there is a sort of understanding among the bankers, that they should pay in gold; but practically, I suppose they pay in neither, they pay by cheques, or by a clearing house. Anybody might, if they liked it, pay a bill of exchange with a wheelbarrow or cart load of silver coins, but of course they never do it. But there is a sort of understanding in the clearing house in New York that silver certificates, which are practically silver, are not admitted.

4237. (*Mr. Chaplin.*) As a matter of fact, what I understand you to say is this, that payments now are hardly ever made in the metals themselves, and that whether you had a single or double standard, the payments would be made in the same way in the future?—I think so.

4238. (*The Chairman.*) You gave an illustration of what was done in New York. I gather your meaning to be, that you do not think that it would be likely to interfere with the working of the system in the results you anticipate from it?—No, I do not think it would at all.

4239. (*Sir T. Farrer.*) Do I not understand you to say, that the very essence of your system is that nobody would have any interest in making any contract of that kind?—I cannot conceive that they could have any. If in the great banking centres of New York, and Hamburg, and Berlin, and Paris, and London, they were all accustomed to have the clearances made in silver or gold, very little silver or gold would pass.

4240. It would not be a question of value, it would be some æsthetic consideration?—It seems to me so.

4241. (*Mr. Fremantle.*) Might there not be circumstances, in which gold may be much more convenient than silver?—No doubt.

4242. (*Sir T. Farrer.*) Do you know the history of the Californian currency?—During the time of the war, in California they said they would not have had currency, and they would go on with the gold currency, although the United States Congress made greenbacks legal tender throughout the Union. They made greenbacks legal tender throughout the Union, and what happened was this, that if you had your bill given you for your hotel in San Francisco, during the war, they presented it to you reckoned in gold currency, and if you had your bill for an hotel in New York presented to you, they presented it to you reckoned in greenback currency. In both cases the amount was paid in greenbacks. In New York you paid the exact sum in your greenbacks, and you paid in San Francisco a greater sum than the bill was given you for, according to the premium of the day. You paid in greenbacks in both places, but in New York you paid the exact sum in dollars that was presented to you, and you paid

in San Francisco so many more. They gave you a bill for your hotel, we will say at four dollars a day in San Francisco, instead of five dollars a day as in New York, and you paid just the same sum, five dollars in greenbacks, according to the exchange, which was more or less the exchange of the moment.

4243. (*Sir T. Farrer.*) Did not the Californian people distinctly refuse to take the greenbacks?—They refused to make them the unit of account; but they used greenbacks; nobody had anything else.

4244. But they refused to use the greenback as the unit of account?—Yes, that is it.

4245. And they made their contracts to pay in gold, or the equivalent of gold?—Yes.

4246. And they passed an Act, I think, in the State of California, legalising those contracts?—I have no doubt the spoken or written dollar there meant the gold dollar, whereas in New York it meant the greenback dollar.

4247. (*The Chairman.*) In the Act which created the gold standard in this country, the recital states that heretofore coins of gold and silver were equally a legal tender in payments to any amount, and great inconvenience has arisen from both these metals being concurrently the standard measure of value. Can you tell me what are the great inconveniences to which reference is there made?—During 1796 and the two years following, there was immense inconvenience from the bad state of the silver coinage, and all those Acts in the latter part of the last century related to the silver coinage, and not to paying debts by silver in bars. As far as I understand the inconvenience, it was solely from the state of the silver coinage, but I could look up that for you.

4248. The silver coinage being depreciated more than the gold?—Yes.

4249. But might not that come about again? Might not the same inconvenience arise under your bimetallic system?—It might, but need not. If the silver coinage was made standard the inconvenience might recur, as it now arises with the gold coinage.

4250. No, but I am saying that under your system it would become standard silver?—I do not admit that it must become standard silver. That would necessitate different laws for the Mint. Of course, if it was very much knocked about, the silver coinage might come to a similar state of inconvenience. It is a question of coins not of "standard."

4251. Was not the inconvenience from the operation of the Gresham law, that it took the less valued metal out of the country?—That was an inconvenience.

4252. And you propose to meet that by saying that if there are other nations who join us, there will be no longer a temptation to send the less valued metal out of the country?—Of course, that would always happen if there was one over-valued.

4253. (*The Chairman.*) Not if it was over-valued everywhere?—Well, during the time there was sufficient difference to make it profitable to send it away.

4254. (*Mr. Birch.*) In 1799 you might pay bills with silver bars?—You might pay your bills with silver bars even then to any extent, an unlimited extent.

4255. (*Mr. Fremantle.*) When silver was sent in to be coined, on more than one occasion, I think, it was refused?—Yes, no doubt it would be so; under the Act of 1798 coinage was stopped altogether.

4256-7. (*Mr. Birch.*) You said something just now with regard to there being no particular utility in gold over silver. I suppose you will allow that in time of war gold is a much more easy thing to move than silver?—I admitted that gold in some cases might be more convenient than silver. I never transported either, but I understand they are transported, not at all according to their weight, but according to their value.

4258. (*Mr. Fremantle.*) Would there not also be the natural result, that the banks would keep their reserves in gold and that the current money would be silver?—I suppose that they would keep their

reserves in the metal that people used, and in the metal which people demanded.

4259. They would prefer to keep in gold the reserves against which notes were issued, would they not, because they would take up less room, for one thing?—I should think they would take whichever was the cheapest.

4260. Would one metal be cheaper than the other under the bimetallic system?—We know that there would be slight variations going on; there were slight variations always.

4261. I understood that the contention was that there would be no cheaper metal?—You will not find that in anything that I have said. To go back to Mr. Fremantle's report. The other proposition to which I take exception is, that the fixing of the relative value of gold and silver is an interference with natural law. On this it appears to me that it is neither more nor less natural to enact that a pound sterling shall be 1,751 $\frac{3}{4}$ grains of silver, than it is to enact that it shall be 113 $\frac{1}{4}$ grains of gold. To enact nothing about either is to leave the two precious metals as commodities, and to return to a state of barter. If it be against nature to enact anything with regard to silver, then you must cease your enactments in India, where a rupee is by law declared to be 180 grains of silver. I venture to think that the bimetallic proposition is unconnected with protection, and neither more nor less against nature than the two separate enactments of the standard in England and India.

4262. Surely that is hardly a full statement of the case. The point is, that it is proposed to enact that 1751 $\frac{3}{4}$ grains of silver shall be equal to 113 $\frac{1}{4}$ grains of gold?—I have never said that. Nobody has ever said that they are equal in any way. What we say is, that a pound sterling shall be either the one or the other; the effect of that may be to make them equal, but that is not the enactment.

4263. (*The Chairman.*) Equal in this sense, that any person who has to receive one pound will be compelled to receive either?—Yes, but not equal in the sense that a man may choose which he has.

4264. (*Mr. Courtney.*) Equal in the power of paying debts?—Equal in the power of paying debts, before payment, that is all.

4265. That is a very important equality?—Oh, very.

4265. (*Mr. Fremantle.*) The pound sterling is to be so many grains of silver, or so many grains of gold, and that you consider is to be the same as saying that it is so many grains of gold. Is not that the point?—The point is concerning a state of nature surely, and the assertion is that it is against nature. Well, my idea is that it is neither more nor less against nature; if the one is against nature the other is.

4267. At present gold is worth about 20 times as much as silver, and you propose by law to give it 15 $\frac{1}{2}$ times the value of silver. Is not that going against the natural law?—Before you can say what the relative value of gold and silver is you must demonetize gold, and when you have done that, you will have some other thing than the money standard to tell you what the relative value is. At the present time, the privilege of the law having being conferred on gold and taken away from silver, the ratio is 20 or 21 to 1, but you cannot say what the natural ratio would be unless you demonetized gold first.

4268. Then you consider that having gold as the sole standard here, puts a fictitious value upon it?—I would call it an artificial value.

4269. (*The Chairman.*) All that you do in fixing the weight of your pound sterling is to fix what a pound shall mean when people are dealing with one another, in pounds sterling of gold, at present?—Yes.

4270. You do not touch any law at all, you simply fix when people contract in sovereigns what that shall mean, whether it shall mean sovereigns of such and such a weight?—Yes.

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4271. If you now enact that a person who had contracted to receive so many sovereigns (which had meant, at least since 1816, only so many pieces of such and such a weight of gold), may be compelled to receive such and such a weight of silver, do you not proceed somewhat beyond the step you have taken in saying that the pound sterling shall mean such and such a weight of gold?—It is of course an alteration. Every enactment made would be so, and has been, whether by suspending cash payments, or by resuming them, or by making the Act of 1844, or by any other one in regard to currency. Numerous alterations of that nature have been made, and I do not see how any alterations in currency can be made without some such effect.

4272. (*Sir T. Farrer.*) When you have either monometallic system, the gold system, or the silver system, you do not fix the relation of value between either gold and silver, or any other commodity, do you?—No, certainly not.

4273. But when you adopt your bimetallic system, you do practically fix the relation of value between gold and silver, do you not?—So you do when you make silver legal tender up to forty shillings, and copper up to twelve pence.

4274. That is token coinage, but it is a perfectly different thing when you say that for the purpose of paying debts a certain quantity of gold shall be equal to a certain quantity of silver. That is a further step. I am not saying it is not a right step?—You do not say anything about the relative value of gold or silver.

4275. But when you say a person may pay his debts at a fixed ratio, in one or other, you do practically fix the relative value of gold or silver. I am not saying that is wrong at all, but I am only saying it is a step beyond what you do in the monometallic system?—It seems to me to be exactly the same. By experience we know that it does, with certain small variations, fix the relative value of gold and silver. If that is an objection, it must be shown what the objection is. As far as I can see, given that a large portion of the world use gold and another silver, it is a very great benefit to all classes of the community.

4276. (*The Chairman.*) I was only criticising your argument that you were doing precisely the same thing, and no more, when you were creating the double standard with a fixed relation of one metal to the other, as you were doing when you simply defined how much a pound sterling should mean?—It does not appear to me to do more.

4277. A man who is down to this time entitled to receive gold shall be bound to receive a certain weight of silver as an equivalent for that gold which he had a right to demand. That is a further step, surely?—If it is a further step it is in the right direction. It is admitted, I believe, that the less the variations of the standard metal or metals the better, and that with this double standard the variations would be somewhat less. This is Jevons's admission.

4278. (*Mr. Courtney.*) Is not this your argument: supposing neither gold nor silver was adopted as the standard of value, gold and silver would be produced and would be exchangeable as commodities, at some ratio continually varying. There is at any moment, let us say, a ratio of 18 to 1. It is then determined that gold shall be made the particular metal by which debts can be discharged to any amount, and the only metal through which debts can be discharged. That gives a new and peculiar importance to gold, and making it demanded for the purposes of currency, would send up the ratio from 18 to 1 to something different, perhaps to 20 to 1. The mere fact of conferring upon gold that power of solving payments, that is your argument?—Yes.

4279. So that in selecting gold and saying that gold shall be coined in pieces of a particular weight, you do something which by that very act does disturb the relation of gold to silver; that is your argument?—Yes.

4280. Then you say nothing more is involved if we adopt the same thing with respect to silver, and say that silver as well as gold shall be the means of payment of debt, at particular weights of silver and particular weights of gold?—Yes.

4281. Although that may bring back the relation between gold and silver to a practically permanent relation of 15 to 1?—Yes.

4282. (*The Chairman.*) That would be so, no doubt, so far as regards all contracts made after you so alter the law; everybody would contract with regard to the new state of the law, knowing it, understanding it; but where you have fixed a pound sterling as meaning so much gold, and that anybody having contracted for so many pounds sterling has contracted for so much gold, and you pass a law providing that every person that has so contracted shall nevertheless be bound to take silver, you do affect all contracts which have been entered into prior to your bimetallic law, and subsequent, at all events, to the law of 1816?—I repeat that every single Act of that nature does the same thing. Nobody said, when the suspension of cash payments took place, that the contracts begun should be started afresh; nobody said, when the Act of 1816 and the Act of 1844 were passed, that they should do so. A case of this kind seems to me to carry that with it.

4283. The Act of 1816 did not alter the gold standard, did it. It made gold the standard, but it did not alter the meaning of the pound sterling of gold, did it?—The Act of 1816 brought gold in as the sole standard for the first time. A pound sterling originally meant a pound weight of silver. The various enactments of English mint prices assigned a given proportion of gold to the old silver standard.

4284. The amount of gold that should be contained in the sovereign, fixed then, was not fixed then for the first time?—No. The amount of gold in the sovereign is a Mint question, not one of standard.

4285. The law made it the sole standard, but it did not alter the meaning of the pound sterling in gold?—No, but all the debts at that time had been contracted in paper; the greater part of the national debt had been contracted in paper.

4286. (*Mr. Courtney.*) The question of the chairman rather refers to the effect which the adoption of one or the other metal, or both, might have upon the meaning of contracts, but we are here considering the question of the adoption of one or the other upon what is called the natural law. We have allowed that the adoption of gold exclusively does alter what would be the relative value according to natural law by enhancing gold?—Yes.

4287. Well, suppose that step and that only taken, we know that there still remains a considerable fluctuation in the market price of silver and gold. That is what we are suffering under or rejoicing under now; silver relatively to gold goes up and down a good deal?—You assert that.

4288. Will you allow me to assume it?—You may assume it.

4289. If the united nations went on to declare that silver should pay debts as freely as gold in the ratio of 15½ to 1, would not the effect of that be in the future to prevent, except within very narrow limits, the variations of price which we have known, or which you accept from me as a fact, within the last 20 years?—Very likely that will be so.

4290. So that there is a little greater interference with natural law, because at present there are fluctuations which you would prevent?—I say, taking the general principle, the general principle seems to be the same, but I will admit everything you say to be true.

4291. (*Mr. Chaplin.*) But is it not your contention that whatever fluctuations there are at the present moment which the adoption of the bimetallic standard would obviate for the future, are owing to the fact that gold has had this fictitious value given to it already by law?—Certainly.

4292. (*Mr. Courtney.*) But I think you would allow that there would be considerable fluctuations if

neither gold nor silver had been adopted as the currency?—I presume so.

4293. And therefore the fluctuations cannot be ascribed solely to the fact that gold has been adopted as the standard and not silver?—I ascribe the fluctuations since 1873 principally to that fact.

4294. (*The Chairman.*) It is true that one standard has been adopted here and in some other countries, but the other standard has been adopted elsewhere, the proportion being something like half and half; so that at the present time we may say, if you take the whole world over, the gold and the silver have about equally had this fictitious value given to them?—If that were so there would be no variation.

4295. (*Mr. Chaplin.*) But as regards Europe is it not the case that the fluctuations in the relative value of gold and silver have mainly arisen, or have at all events largely increased since one metal has become the standard?—I think so, yes.

4296. (*Mr. Fremantle.*) One metal has become the standard, no doubt, in many parts of the world, and that metal gold, but in the United States, on the other hand, the Bland Bill has made it imperative that the Government of the United States should coin about 5,000,000*l.* sterling of dollars every year?—Yes, but you must recollect that the Act making gold the standard of the United States had only been passed two or three years before, and never was in force. Up to that time there had been the double standard there.

4297. There was this arbitrary interference with coinage, that whether the silver dollars were wanted or not, the Bland Act made it obligatory upon the United States Government to coin nearly 5,000,000*l.* sterling worth every year?—Yes.

4298. Well, then, since that time it is a fact, is it not, that the gold price of silver has gone down in the market?—Yes.

4299. If that is so, how would you account for the fall in the price of silver?—Because the demand for gold has been much greater.

4300. But is not this demand for silver a very large one?—The demand for gold is unlimited. By the Bland Act that of silver is limited.

4301. (*Mr. Barbour.*) We have had some talk about the ratio which would be established, by what I believe has been called the natural law between gold and silver, that is supposing neither gold nor silver was coined or made a legal tender; I believe silver at any rate and perhaps gold has been coined in Europe for more than 1,000 years?—Yes.

4302. And I believe there is every probability that in future both will be coined?—I believe so.

4303. Do you think there is any profit to be got from speculating what the ratio would be under circumstances which have not existed for a thousand years, and are not likely to exist in the future?—I do not think there is the least profit in it.

4304. (*The Chairman.*) Then the third point that you wish to make some observations upon is the position of London as the monetary centre of the world in relation to commercial transactions?—It has been for years the practice to open credits in London for shipments to and from various places when each actual transaction was in no way connected with London, *e.g.*, cargoes of coffee from Brazil to New York, or tea from Shanghai to San Francisco, would be paid for by drafts upon London. It has been asserted that this banking monopoly arises from the speciality of the gold standard of England, and supposing this to be correct, it is manifest that the trade or craft of foreign banking in London to the extent of the advantage of the gold standard, is being protected by that institution. I entirely deny that the two things are connected in any way. I believe that the monetary supremacy of London is due to far different causes, but conceding for the sake of argument that the gold standard is the cause of it, I venture to submit that it connects protection with the controversy in a way not contemplated by the Treasury. It may be said that the date of the gold standard is 1816, and it can scarcely be asserted that the monetary

supremacy of London was in existence at no earlier period. In my opinion it is due,—I. To our enormous capital and commercial practice; II. To our insular position, and immunity from war within our borders; III. To the character and capacity of our merchants and bankers. I may also say that Lord Ashburton gave evidence before the Committee for Coin, on the 26th of April 1828, much to the same effect, and besides that he thought it was rather an inconvenience than not, the not having silver as well as gold in our vaults in London.

4305. (*Mr. Birch.*) That was principally with reference to India, I think, and the facility silver offered for drawing gold from the Continent?—It had no reference to India.

4306. Lord Liverpool, in his treatise that we had the honour of publishing, I think particularly refers to gold as being best adapted to England, so distinguished for its affluence and its commercial connexions?—He proposed that gold should be the standard because, on account of our commercial supremacy, we could afford to have a gold circulation.

4307. (*The Chairman.*) That closes the special points to which you wish to call attention. With regard to the general question of the expediency and possibility of introducing the bimetallic system into this country, I understand that you agree with the evidence that has been put before this Commission by Mr. Gibbs?—Almost entirely; I think you may take it that that is my evidence as well as his.

4308. (*Mr. Barbour.*) Have you formed any opinion as to what would happen, what the effect would be on the ratio between gold and silver, if the Americans ceased to coin silver as they are now doing?—I think there would be a very great further fall in silver; but I have received an immense amount of information on the subject of the probability of that cessation, and I think you may almost assert now that they will not do so.

4309. And not merely would more silver be thrown on the market, but there would be an additional demand for gold, because the silver that is coined now occupies a place in the currency which would to a greater or less extent have to be filled by gold; there would be the double effect?—I should think so.

4310. It would probably have a serious effect upon the ratio between gold and silver?—Yes.

4311. And you know, of course, that the Secretary of State for India draws a very large sum on India every year, from 13,000,000*l.* to 16,000,000*l.* sterling?—Yes.

4312. Which to some extent takes the place of remittances of silver?—Yes.

4313. If the Secretary of State ceased for any reason for a year or two years or three years to draw that amount on India, would not that have a very disturbing effect on the ratio between gold and silver?—I should think very great indeed.

4314. You would have a very great temporary fluctuation in exchange?—Yes, certainly.

4315. Would that have a very disturbing effect on all business transactions either one way or the other?—With India, certainly.

4316. (*Mr. Chaplin.*) I should like to ask your views upon the statement that there has been an universal fall in prices. Are you aware that the recent Commission on the Depression of Trade reported to the effect that since 1873 there had been a fall in prices in this country, and especially in the value of the exports and the imports between 1873 and 1883. Would that agree with your experience?—Certainly.

4317. Have you formed any general idea as to the extent of this fall?—I wish to say that I am not a statistician, and I lean entirely upon those statisticians whose figures I have generally found to be correct. But with regard to the fall it seems to me that in the first place the general law would indicate that there was bound to be a fall; in the second place it is a fact that there has been a fall, and in the third place, if I am to choose between the figures of Mr. Giffen, Mr. Jevons, *The Economist*, and Mr. Goschen on

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the one side, and those of Mr. Forsell and Mr. Mulhall on the other, I can only say that I rely on those of the former. I believe the index number statement of *The Economist*. None of the authorities I have mentioned are, to my knowledge, bimetallists.

4318. Has this fall, in your opinion, resulted either wholly or partly from the changes in the standard of value?—It is my opinion, that it has to a very considerable extent arisen from the alterations in the standard of value.

4319. How much of this fall in prices would you say can be fairly referred to this change in the standard of value? Can you form any opinion upon that?—It would be very difficult to pledge myself upon how much it is, but I think the general fall in prices is about equal to that of the fall of silver in gold.

4320. What is the fall in the price of silver?—I think it is about 25 to 30 per cent.

4321. Then your opinion is this, that there has been a general fall in prices to the extent of between 25 and 30 per cent.?—I think so, yes.

4322. (*Mr. Courtney.*) Silver prices are steady?—Silver prices have fallen too, slightly.

4323. (*Mr. Chaplin.*) Now could you give us an instance of any particular production which would illustrate this?—I could give you one that I am interested in myself, which is copper, but I am very sorry I am unable to produce statistics, which I hoped to have done, to show what the exact increase in production in that commodity was during the time of the effects of the gold discoveries, but strangely enough there are no such returns to be found anywhere, therefore I have been unable to put them in. I should say that the fall in the price of that commodity is about 50 per cent. from 1870, and I think that about 25 per cent. is due to increased production and about 25 per cent. to the change in the standard. I may say that it is a very singular fact with regard to that commodity, that between the years 1847 and 1858 or so, about that decade, the production of copper increased most enormously, and yet the price kept continually rising, whereas between 1880 and 1884, although there was some increased production, the visible stock rather decreased, and yet the price kept falling. Since 1884 the production has increased in America most enormously, and prices have therefore naturally fallen also. I may also say that the shipments of that commodity to India are in precisely the same condition as the shipments of manufactured goods from Lancashire to India in regard to exchanges and so on, and therefore I need not go into that again, because it has been sufficiently explained by Manchester manufacturers. But I may repeat, with regard to the bonus which is supposed to have been given to producers of wheat, &c. in India, and of which we have heard so much, that precisely the same thing occurs in Chili in regard to the production of copper. I think I may assert that with the present fall in that commodity, a very large portion of the mines in Chili would have been shut up if they had not been on the basis of the depreciated currency which is now the law in that country. A great many mines quite as good as those in Chili have been closed in Australia and other places in consequence of the great fall, and the same thing would have happened in Chili if they had not been on the basis of the paper currency, and if they should resume cash payments the effect would certainly be that the mines in that country would have to shut up.

4324. I may take it, then, that you consider beyond doubt that prices are influenced by an expansion or contraction of the volume of legal tender money, and that they would rise and fall with that volume?—Yes, that is my opinion.

4325. In other words, I suppose you would say that money is dear because money is scarce?—I consider that money is dear and scarce in the economic sense; but not in the sense that the word dear and cheap money is used every day in the money articles of the papers, because money is excessively cheap in that sense.

4326. You said, I think, that you agreed with Mr. Gibbs, generally speaking, in his evidence, therefore perhaps I need hardly ask you whether you trace the disturbance in values to the legislation of Germany and subsequent legislation abroad in demonetizing silver since 1873?—I consider the action of the closing of the Mints to silver in France following on the demonetization in Germany was the main cause.

4327. Then, as matter of fact, in your opinion the entire scale of prices has been suddenly affected, since 1873 by the fact of that foreign legislation?—Yes.

4328. While you say that we, as we have always been gold monometallists for so many years in this country, did not feel the scarcity of money and recognise the effects of this before 1873?—The effects on prices in a similar or analogous manner were felt after the enactment of the gold standard and the resumption of cash payments in 1816 and 1819, but the real reason, I think, why this particular phenomenon was not to be observed was that all the silver in the world that was mined could find its way to some of the open Mints of the countries of the Latin Union, and could be coined in those Mints into legal tender money, therefore when so coined it increased the volume of the general currency of the world to that extent, in the same manner as when gold was discovered.

4329. I think you have told us this afternoon that the coinage demand for either gold or silver is a chief factor in determining their price and their value?—I think so.

4330. I want to ask you a question about the ratio between gold and silver, the ratio of $15\frac{1}{2}$ to 1. What was it in the first instance that fixed that ratio? Was it arbitrarily settled by law, or was it caused by any difference in the cost of production of either of those metals?—The ratio has been fixed by law, but for a great many years in this country it was the opinion of the leading economists that the statement of Ricardo was correct, namely, that the reason gold was $15\frac{1}{2}$ times as dear as silver was that it cost exactly so much less to produce silver than gold; and that opinion was adopted by most of the economists up to the time of John Stuart Mill. He stated that the difference between the precious metals and all other commodities was, that the value of the former depended not upon the cost of production directly, but upon the quantity produced, which quantity produced ultimately would be settled in long periods by the cost of production. In my opinion this turns out again to be doubtful, for we find according to tables before us that between 1803 and 1873, the quantities produced of gold and silver varied enormously, and at the same time the relative prices changed very little. I think, therefore, it is conclusively demonstrated that the reason why the ratio was $15\frac{1}{2}$ to 1 was purely owing to the Mint laws of the various countries, and not to the relative cost of production.

4331. Is it not the fact that all the silver produced by any mines in the world could, before 1873, be taken and actually was taken by the free Mints of the Latin Union, and in this way all the silver that was produced was added to the legal tender money of the world?—I believe so, to the volume of the currency.

4332. Then, as long as that position was maintained, without any effort whatever on the part of England, there was no necessity for this country to entertain any proposals directed to secure an international monetary policy?—No, there was no occasion whatever; it was perfectly satisfactory, apparently, on all sides.

4333. Well, then, is it not the case that since 1873 the position has been entirely changed, and that no legal tender silver at this moment is now being added to the money stock of Europe?—I do not say none is, because the Latin Union may coin some. They are, however, limited in the amount.

4334. (*Mr. Fremantle.*) That is to say, standard money; large amounts are added, are they not, as token coin?—Yes.

4335. I think you said you had no fear whatever that the operation of the Bland Bill was likely to be suspended?—From what I hear I think it is almost impossible that it should be suspended.

4336. But supposing it was suspended, do I gather from you that the effect of that suspension in your opinion would be to cause a still greater fall in the value of silver?—Certainly, and in the exchange with India.

4337. And that all the evils which arise from the present system, in your opinion, would be proportionately increased?—Certainly.

4338. (*Mr. Courtney.*) You said that Mr. Mill was wrong in thinking that the relative values of the precious metals were due to the cost of production, but that in fact they were due to the establishment of Mint prices?—What I said was, that Ricardo was wrong in asserting that it was only due to cost of production, and that Mill qualified Ricardo's assertion by saying that it depended not absolutely upon the cost of production, but upon the quantities produced.

4339. Both, in your opinion, had imperfect if not erroneous views, because you think that the relation between the two metals was really determined by the Mint prices?—By law, yes.

4340. Might we perhaps say that in truth the establishment of Mint prices practically regulated the cost of production of the metals produced, in the least profitable form, whether gold or silver?—That is a very difficult question to answer, because many people will tell you, that the whole mass of gold and silver is produced at a loss altogether.

4341. True, but there is always a degree beyond which people will not go?—Yes, quite so.

4342. And the limit line that is fixed, of least remuneration, or of the limit of loss that they can suffer is determined, in the case of the two metals, by the Mint price?—I think so.

4343. So that if we established again a relation of $15\frac{1}{2}$ to 1 between silver and gold, the effect might not improbably be that certain gold mines which are now perhaps working at a loss would come to be worked at a greater loss and would be abandoned?—I should be sorry to assert that. It might be so.

4344. That is conceivable, if it had any effect upon the production of the two metals, it would be to go to the least profitable gold mines?—Yes.

4345. Because you are establishing a relation of silver to gold which is greater than that which now prevails?—Yes, that is conceivable.

4346. (*Sir T. Farrer.*) I rather gathered from your answers to Mr. Chaplin, that you think prices have fallen somewhat like 25 per cent. in consequence of the appreciation of gold?—Yes.

4347. That arises from the fact that the demand upon gold has increased in proportion faster than the supply?—Yes.

4348. When we talk of the supply of gold, there is this great distinction, is there not, between the precious metals and other things, that the precious metals are not consumed, so that we have to deal with comparatively permanent quantities?—That is so.

4349. And you must look to the stock of these metals, and not only to what is produced every year?—Certainly.

4350. (*Mr. Barbour.*) Do you think that the stocks of the precious metals which are hoarded, buried in the earth, or in ornaments, watches and chains, and so forth, have any effect upon prices?—I cannot answer that question.

4351. (*Sir T. Farrer.*) I find that, according to Dr. Soetbeer, the production of gold, during the 358 years from 1493 to 1850, was about 660,000,000*l.*, and I find that the production of gold between 1851 and 1885, 35 years, was 890 millions, that is to say, that in these last 35 years, the quantity produced was one and a third more than all that had been produced in the previous 350 years. Now I suppose you would agree that of the stock produced before 1850, a very large quantity would be lost, sunk, hoarded,

and not available for the purposes of commerce?—I do not think I can answer that.

4352. You would not think that the whole of the gold that was produced between 1493 and 1850 would be in use in 1850?—No.

4353. And in the same way there would be a certain contraction between 1851 and 1885?—Yes.

4354. But more during that longer period than during the shorter period. Then we have an extraordinary demand during the last 15 or 20 years, which is estimated by the statisticians at something like 200,000,000*l.* for the coinage of the different countries?—Fully that; 250,000,000*l.* I should call it.

4355. Well, say 250,000,000*l.* Then you have, as produced during the last 35 years, 890,000,000*l.*?—Yes.

4356. Suppose you assume that the 250,000,000*l.* of extraordinary demand is a new demand altogether, then deducting 250,000,000*l.* from 890,000,000*l.* you have 640,000,000*l.* left as produced within the 35 years which are applicable to current demands for coinage for manufacture, and so on. Is not that so?—Yes.

4357. Therefore since 1850 a considerably larger sum of gold has been added to the whole stock of gold in the world than would have been in existence in 1850, if the whole of the gold produced before that time had been available?—Unquestionably.

4358. Well, then do you think that the demand for current purposes, since that time, is so great as to cause a greater scarcity than we had experienced before?—Certainly, very much greater.

4359. Enough after all that addition to the stock of gold in the world to make gold scarcer than it ever was before?—Yes, scarcer than it was before the demonetization of silver in 1873.

4360. Even though there have been in all the great trading nations very great economies in the use of gold?—What do you mean by economies in the use of gold?

4361. Let me illustrate what I mean in this way. You will admit that in backward countries much more currency is used for the purposes of trade than is used in countries which are more advanced?—I do not agree with that at all.

4362. You do not think that in England and the United States the quantity of gold in proportion to the transactions is much less than it is in less advanced countries?—At this moment I believe there are various economies, which are called economies in banking, and one especial branch is the use of credit, such as bills of exchange. I believe the bills of exchange in the internal trade of this country, in proportion to its amount, are much less than they were 40 years ago.

4363. But are they not replaced by bank cheques?—That may be so. All those economies you suggest may have had a very great effect on the one side, but on the other side I believe, in the internal trade of the country, there are fewer bills used than there used to be.

4364. (*The Chairman.*) Do you mean that they pay more in cash?—In cash a great deal.

4365. (*Sir T. Farrer.*) Have you any proof of that?—I believe it is very difficult to get proof. Mr. Palgrave, I think, was for years endeavouring to make up some return on the subject of the number of bills of exchange. I can only say, in regard to any trade I am connected with, that the use of bills of exchange is much less than it was, and the payments in cash much more frequent.

4366. But when you say payments in cash, are they payments in gold or notes, or payments by cheque?—Payments by cheque.

4367. Do you call payments by cheque payments in cash?—I only say by cheques on the one side, and as a substitution for bills of exchange on the other. That being the case, it has no effect on the one side or the other.

4368. (*The Chairman.*) A cheque is a bill of exchange you know, and therefore whether it takes the form of a bill drawn on the person to whom goods

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have been sold, or on the banker, it is done by bill of exchange; but do you mean that in place of either bills of exchange or cheques, money, gold and silver, Bank of England notes are paid?—I mean that in place of bills of exchange, cheques are now used.

4369. (*Sir T. Farrer.*) But in the wholesale transactions of this country, does any gold or do any bank notes pass?—Very little; but as much as before 1873, with the exception of payments for cotton in Liverpool.

4370. Is not the business done entirely at the clearing houses?—Yes, entirely.

4371. Therefore no cash passes?—No.

4372. Therefore when Mr. Chaplin asked you as to the demand on the quantity of money it is not the quantity of money simply that is in question, but the quantity of money in proportion to the demand for it?—Yes.

4373. Therefore if the demand for it is decreased by all these expedients, the same quantity of money will go a great deal further, will it not?—That would explain a rise in prices, but we have got to explain a fall in prices. Every addition to credit that is made would naturally increase the volume of that which was current in the country, and if prices had gone up immensely, you might say one of the reasons was the economies in banking.

4374. You are stating that there has been an extra demand upon the gold of the world, that the demand has grown faster than the supply; I am asking you whether the demand is not diminished by all these expedients for saving gold and saving notes?—Yes, but prices would not have fallen, they would have gone up.

4374a. (*The Chairman.*) That is reasoning in a circle surely. You assume that the two things are connected, you say there cannot be these economies, there must be more demand for precious metal, because prices have gone down. One wants to know whether there is any connexion between the two things such as you suggest; you must surely investigate each of the two facts independently?—The two facts you wish examined independently are (1) the fall in prices, (2) banking economies. I have already answered as to the first, and as to the second my answer is, banking economies have been in full progress both during the rise in prices and during the fall. I have no doubt they intensified the rise, and have relieved the fall.

4375. (*Sir T. Farrer.*) I should like to ask you this further question in regard to the economies in the use of gold. Mr. Gibbs has said that this country was fully banked before 1873, when prices began to fall, but assuming that we had a complete system of banking and clearing, is not that a system which expands of itself with the wants of commerce; it is not simply that you have a clearing system which in 1870 clears all the then transactions, and will not clear any more, but it is a system which as the number of transactions increases clears the larger number just as it did the smaller number of transactions at the earlier date?—It is very difficult to verify all the facts as to what some people call banking economies. Some are known and some are unknown. The precise amount of gold in people's pockets cannot be known, the diminution of bills of exchange, in proportion to the business done, is asserted, but precise information is not attainable. There are, however, some particulars which can be had, and one is the amount of notes in circulation. I made a comparison of the fiduciary circulation in 1845 and 1886, by which it appears that the amount of fiduciary circulation was legally, in 1845, 32,000,000*l.*, whereas it was in 1886 only 30,250,000*l.*, or a diminution of 1,750,000*l.*, but the diminution in the actual fiduciary circulation was, in round numbers, 6,500,000*l.* The gross circulation of notes, whether on gold or securities, increased during the same period about 3,500,000*l.* If you add the diminution of the actual fiduciary issue to the increase of the gross circulation you arrive at a figure of 10,000,000*l.* This amount would indicate the extent to which contraction of that form of credit instruments rather than expansion had

taken place. What you say of the clearing house may be true.

4376. (*Mr. Courtney.*) Would not a clearing system clear with the same facility an exchange of 500,000,000*l.* as an exchange of 300,000,000*l.* in the course of a week?—You must ask those who have studied that. I believe of course an increased number of banks require so many more reserves of cash.

4377. (*Sir T. Farrer.*) I would ask you now, after looking at the figures that I have given you, to consider how you think it is that the scarcity of gold or the increased demand for gold, in proportion to the supply, has arisen?—I would answer that I believe the scarcity of gold, and the fall of prices to be absolutely convertible terms, and that there is no other meaning in the appreciation of gold and the fall in prices, they appear to me to be absolutely synonymous.

4378. Then I would ask you another question, whether prices do not depend on the quantity of the commodities as well as upon the quantity of gold?—That is quite compatible with the other; all I mean to say is that the two things are absolutely the same. The appreciation of gold and fall of prices are absolutely synonymous to me.

4379. The appreciation of gold, and the fall of prices are synonymous, but though they are one and the same thing, that one thing may arise from very different causes?—They may arise either from increase of commodities, or increase of gold, or *vice versa*.

4380. Taking those two causes, it may arise from a scarcity of gold on the one hand, or an abundance of commodities on the other?—Yes, and I have already said that in one particular commodity I consider it is about half and half.

4381. (*Mr. Fremantle.*) You said just now that you thought the disturbance in the relative value of gold and silver was due mainly to the changes made in foreign mint regulations?—Yes, or laws relating to "the standard."

4382. But are there not also natural causes for such a disturbance in the amount of silver and gold which has been produced of late years?—What do you mean by natural causes?

4383. The amount of gold and silver which has been dug out of the earth?—As long as the mints were ready to coin either metal it did not matter how the production varied.

4384. Then you think that it would have made no difference, if the foreign mint regulations had remained as they were, that the production of silver in the world has increased from the date of the great gold discoveries from 8,000,000*l.* to 25,000,000*l.* a year, while the production of gold has fallen from 30,000,000*l.* a year to about 20,000,000*l.*?—Upon the figures you give me prices ought to have risen under the old arrangements. The variations of the supply in quantity of gold and silver between 1873 and 1884 have varied much less than they did during the time that prices did not change at all.

4385. There was some disturbance, was there not, in the French arrangement, at the time of the great gold discoveries in 1851; that is to say, that silver was in great demand for the East, and went in large quantities to India, and that if it had not been for other causes intervening at that time silver would have probably gone to a premium?—I cannot say what it would have gone to, but all I can say is that the variation was extremely small.

4386. But there were such things as variations in prices?—If you mean in the relation of silver to gold, there was a variation in 1832 which was much greater than anything that took place from the gold discoveries in 1851, rather from political reasons I think.

4387. Then you would not be disposed to attach any importance to the amounts of gold and silver which were produced, relatively, so long as the old European mint system had been maintained?—I should not say none, but I think the importance of it is less when you depend on two metals, than as now, when you depend on one.

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4388. (*Mr. Courtney.*) I think you allowed in answer to my question that if those relative mint prices were retained the production of gold and silver would be regulated so as to correspond to them?—I think I said it would have something to do with it.

4389. (*Mr. Fremantle.*) Did I understand you to say just now, in answer to Mr. Chaplin, that the whole of the silver produced in the world was coined under the system of 1873?—No, was open to coinage.

4390. What would be the effect on production if the coinage of silver were restricted?—I believe a great deal more silver and gold is produced than pays for the production, therefore I do not suppose a rise in the value and a mint here and there would increase the total volume of it very largely.

4391. Would not the production of gold be very likely to be diminished?—I have heard people say so. I do not myself think so for the same reason that I think people look on gold and silver without any great reference to its cost.

4392. Would not there be a probability that the mints would be flooded with silver sent in for coinage?—I do not know that the French mints were flooded, but if the bimetallic system ruled over the whole world that would give of course a great deal more opportunity for coining silver. I am afraid we must go back to the old question. If the mints were flooded with silver the question would be, where would the gold go to, and I have never found any body who can tell me that. A great deal has been said upon the island of Jersey, and I should like to ask whether the monometallists really think that if the inhabitants of the island of Jersey had a fancy for a gold coinage, they could suddenly draw all the gold out of England and America and Germany and France.

4393. But a large amount of gold is already hoarded in India, is it not?—Yes, I believe so.

4394. In your opinion would not a change to the bimetallic system increase the amount likely to be hoarded in gold?—I believe the increase of the hoarding of gold in India arises from a suspicion in the minds of those who hoard it, that the gold standard may be enacted in India, and they wish to get the profit on the change. If there was a bimetallic system in the five greatest nations in the world, and the Indian Empire, I do not suppose any Indian would care to hoard gold any more than silver, unless for ornaments and such class of things.

4395. Apart from such circumstances, is there not a demand for the arts and manufactures which would be likely to lead to a premium on gold?—If everybody grew so rich as to have a fancy to have gold ornaments of course there might be.

4396. There might be a different proportional value between gold and silver for other purposes than coinage?—The stock of gold is 800,000,000*l.* If we had 800,000,000*l.* of ornaments, of course that would be so.

4397. Without our having the whole 800,000,000*l.* as ornaments, there might still be some change in the relative value?—There might be some change.

4398. I see that in the preface to the volume you have published with Mr. Gibbs you say that "it may be useful to recur to the arguments of two of the "guardians of English currency" on this question. By the "guardians of the English currency" you mean directors of the Bank of England?—Yes, ex-governors.

4399. I presume we may take it that your views are not the expression of the opinion of the court of directors of the Bank of England?—I have never said they were, and I have always said they were our own individual opinion.

4400. (*Mr. Houldsworth.*) You hold that there was a great steadiness in the relative prices of silver and gold before 1873 for a very long period?—Yes.

4401. And do you hold that that was in consequence of the bimetallic law being in operation?—Well as far as this century, and I think the last, was concerned, I do certainly.

4402. Do you hold that the bimetallic law in its existence over a partial area will have the full operation in steadying the relative prices of silver and gold in countries which do not adopt it?—If countries of sufficient importance, of course not the island of Jersey, but if we had the United States and the Latin Union agreeing together, without any reference to us or Germany, I think it would have that effect at once.

4403. If England adopted the bimetallic law, and no other country did, would that be sufficient to steady the relative price?—I have not the slightest doubt if the British Empire did it would be quite sufficient without asking the other nations to join.

4404. And you would recommend the British Empire to adopt that; believing that the results would be satisfactory to England and also would have a good effect over the world?—No, I have always said that it would be unjust to ask England to do it at least unless Germany, the United States, and France did it. I do not see why we should change our standard unless that was the case.

4405. Then you think there would be some ill effects to England under those circumstances?—Merely the ill effects of the change which was not absolutely necessary. I think that other nations should ask it of us rather than that we should change our standard without reference to other countries.

4406. Still you have a very definite opinion that the bimetallic law would have the practical effect of steadying the relative prices of silver and gold on the Continent, and in the United States, if the British Empire adopted it?—I have not the slightest doubt about it.

4407. Suppose now that there is a consensus of opinion amongst the large nations of the world, and that they are disposed to join together in adopting the bimetallic law, have you any opinion as to what ratio should be adopted?—The United States legal ratio at this moment is 16; they are willing to go to the 15½. The Latin Union legal ratio is 15½, and so far as thalers are a legal tender in Germany the ratio there is 15½; and therefore I think that notwithstanding the apparent injustice in altering the ratio which exists now to 15½ to 1, the objections to that would be less than attempting to bind the two metals together at any other ratio, in fact, I doubt whether it would be possible.

4408. Would you expect any very sudden effect on prices if it were adopted?—No, I think it would take some time to affect prices.

4409. Have you any opinion as to what effect the appreciation of gold has had upon wages?—Wages must be considered in two categories. I. the amount given for particular work done, and II. the number of workmen employed. The two together would make the wage fund. I agree perfectly in the assertion that the rise or the fall in wages takes place some time after any great change, so far as particular work is concerned, but on the numbers of people employed I think the effect is much more immediate.

4410. Do you think we have had the full effect of the appreciation of gold yet upon the wage fund?—No, I do not think we have or anything like it, in fact I should not wonder before many months are over that we found a very great increase of that effect in the shape of the diminution of masses of workmen employed.

4411. And also upon the rate of wages?—And then necessarily the rate of wages will go still more slowly.

4412. (*Sir T. Farrer.*) Are you aware that in America, where there was also a fall of wages and cessation of employment, that both are said to have recovered, so that both are as great as before the fall, if not greater?—You must be quite aware that there are great fluctuations in trade of this kind which take place, over short spaces, in all countries, which are quite different to those which are spread over very long periods. And it is extremely difficult for any body to assert positively that a breakdown in this

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trade or that is due to long or short causes, and I should be very sorry to assert anything about it.

4413. (*The Chairman.*) Do you mean to represent that in all employments there is a diminution in the number employed?—I am talking of the larger trades you know, such as agriculture as a whole, and coal as a whole.

4414. Well, now, take collieries, I should like to ask you whether there are not as many men employed in the collieries now as there were 10 years ago?—Not in any district that I know anything of. I only speak of the districts I know of. I am quite certain numbers of collieries are shut up.

4415. Yes, but there are new ones too; there are collieries that have come into work lately?—An enormous number came into operation after the high prices of 1873, and a portion of them have been shut up since.

4416. (*Mr. Houldsworth.*) Are you in a position to tell us whether the employment has increased in proportion to the population?—I have not got my wage statistics with me.

4417. Because, though the volume of trade might be increasing and the volume of trade is greater, if it was not in full proportion to the increase of the population, then there would be the state of things that you have represented that there would be?—More people out of employment.

4418. (*Mr. Courtney.*) Upon the last question that was raised you said it was anticipated in the course of the next few months in all probability that there would be a great diminution of employment. I do not follow you how you think that would operate; I mean I do not follow the theoretical causes which you conceive would come into operation so that in the course of the next few months there would be an advantage?—I do not think I said there would be an advantage. What I said was, that in many trades I had reason to believe there would be a diminution of men employed in the next few months, which would be a disadvantage. I must repeat that I have not my wage statistics with me as to the past; and as to the future, I refer to my answer to the previous question.

4419. (*Mr. Houldsworth.*) Are you aware of any evidence that the lowering of wages is taking place at the present moment?—No, I do not think I have anything with me to show it.

4420. You do not know perhaps for instance that strikes which take place now are very much more easily settled than was the case in the inflated times?—I think there is no doubt that is so, and I think that is an indication of the men knowing very well that the trade is not profitable, and that wages are falling.

4421. Would the bimetallic law, do you think, if it were introduced as we are proposing, would it have the effect of steadying that fall of wages?—I think it would create a greater demand for labour in the manufacturing districts, and I think it would stay the fall in the agricultural districts.

4422. Then do you think it would raise wages?—No, I do not think it would at first.

4423. (*Sir T. Farrer.*) Are you speaking there of money wages or real wages, that is the quantity of things which the labourer wants which he can buy with his wages?—That is a different question altogether; we were speaking of money wages.

4424. (*Mr. Houldsworth.*) I presume you would hold that if the appreciation of gold had caused the fall in prices in commodities, and that as you told us the wage fund had not yet felt the effect of the appreciation, that when it did feel it then you would have the wage fund and price of commodities in the old relation that they occupied before both those changes took place?—I do not know that you quite understood the distinction I drew between two parts of the wage fund. I think that the wage fund has already, in the diminution of numbers of workmen, felt the effect, and that the amount of wages given to particular work perhaps in some cases has not, but that it is bound to be felt in time, and that if on the other hand

the range of prices increased very much again, the number of workmen employed would increase very soon, and the amount given to each particular work would rise at a slower rate.

4425. Do you hold that the legislation in 1816 affected contracts that were made before that?—Certainly, an immense amount of ruin of all kinds arose from it, which was the subject of innumerable writings and pamphlets at the time.

4426. Then you hold another distinct effect was produced on contracts by the resolution of Germany in 1873?—Yes.

4427. And you hold that any new legislation would not produce any more effect on contracts than these previous Acts of legislation?—No, they would be of the same character.

4428. (*Sir John Lubbock.*) The effect of adopting the ratio of 15½ to 1 would be, would it not, to raise the rupee to about 1s. 11d.?—I presume so.

4429. Would you not in effect be enacting that every debtor who had made contracts with the rupee at the present price should have his debt raised about 20 per cent.?—Yes, just in the same way as in 1816 or of 1797, or on any other legislative changes of that kind which might occur, some people would have their debts increased to the extent of the alteration in the prices.

4430. But was there any legislation in 1816 or at any other time such as to make a difference in a few hours of 20 per cent. in the amount of the indebtedness?—I think the battle of Waterloo must have made a great deal more.

4431. But that was not a matter of legislation?—Well, it was not a matter of ratio, it was one of "ultima ratio."

4432. The silver debt of India amounts to one hundred millions sterling, would it not be rather a serious thing to have a legislative enactment that would raise the value of that debt to a hundred and twenty millions sterling?—The alterations made, not by ourselves, but by the German and French Governments, reduced the debt to that extent.

4433. But we are not responsible for the legislation of foreign governments?—I may say we are responsible to a certain extent. The whole of this monetary revolution springs from a monetary conference at Paris which had to do with coins in 1868, and the greatest possible encouragement was afterwards given by the English Chancellor of the Exchequer of the day to the idea that all nations had much better come to a gold standard, and that conference at Paris in 1869 came to the conclusion that a single gold standard should be adopted by all nations, the object being that they might have a similar coin. The German Government, when they had conquered France and taken all the gold out of the country, determined to act upon that solemn resolution adopted at the Paris conference. Therefore I venture to assert that there is some responsibility attaching to England; certainly attaching to English economists, and, in my opinion, to the advice of the English Chancellor of the Exchequer in 1869 in producing that resolution which reduces the rupee debt of India.

4434. At any rate you think it is so important to adopt the bimetallic theory that you would be prepared to face that?—Yes, I should be very glad to do it.

4435. Still you approve, do you not, of the present system of gold being used for the large payments, silver for the medium, and copper for the smaller payments of the country; you regard that as a convenient system, do you not?—Yes, I think so.

4436. And it is very important, is it not, that all these classes of coins should be easily obtainable?—Yes.

4437. At present, apart from the inconvenience of the light sovereigns, it is always easy to get either gold, silver, or copper coin, but in France under the old system you had a difficulty. There was an agio, sometimes on gold, sometimes on silver; and do you not think that is rather an inconvenient arrange-

ment?—No, I do not think there was any inconvenience about it practically; there was an inconvenience in carrying about barrowfuls of silver to pay your bills with, but that is now put an end to by the use of cheques and bank notes in fact.

4438. Under the bimetallic theory which you advocate you consider, do you not, that the moment either gold or silver fell in value as compared with the other the demand for it would increase, and *vice versa*, so that there would always be a compensatory arrangement that would keep both metals in ratio?—Yes.

4439. You have expressed your concurrence in Mr. Gibbs's opinion, that the relative change in the value of gold and silver is partly due to depreciation of silver and partly to the appreciation of gold?—If you mean the change in value of gold and silver told in each other, I agree with Mr. Gibbs that is partly due to one and partly to the other. If you mean the relations of the two metals to commodities, it appears that silver has scarcely altered while gold has risen 30 per cent., and therefore I should say that the fall in prices is the same as the appreciation in gold.

4440. We are to inquire whether the change in value is due to the depreciation of silver, the appreciation of gold, or to both, and Mr. Gibbs expressed his opinion very strongly that it was due to both causes; do I understand that you differ from him in that respect?—There is a depreciation of silver told in gold from causes connected with the former, I do not dispute that.

4441. You think in the main it is due to the appreciation of gold, and not to the depreciation of silver?—I think so.

4442. You know it has been argued by several authorities, and particularly by Mr. Childers of late, that the effect of war by diverting labour from production, is to raise prices; and *vice versa*, that the tendency of peace is to produce a gradual fall of prices; do you think that the fall of prices of late is to any considerable extent due to the lengthened peace; have you considered that question?—Yes, I have studied that question, I think there is a great deal in it. I always believe that war has a very considerable effect on prices, therefore it is not a question of principle that I should dispute with Mr. Childers, I merely dispute the degree and the amount to which that has been the case.

4443. Then you consider that the present fall in prices is to an important extent, though not entirely, due to the lengthened peace?—I think it has something to do with it. It is important, I have never disputed that.

4444. Then I gather your opinion to be that the action of Germany and other countries which have adopted the gold standard has affected the relative values of gold and silver by increasing the demand for gold and decreasing that for silver?—Yes, for the purpose of coinage.

4445. And in your opinion the adoption of bimetalism would raise the value of silver by the opposite process?—Yes.

4446. But you will remember no doubt Mr. Seyd's table of the population using different currencies, 85,720,000 using gold, 139,000,000 using mixed gold and silver, and 841,000,000 using silver. Now to those 85,000,000 we have to add I think Germany 41,000,000, Holland 3,700,000, Norway and Sweden 6,000,000, who have taken to gold, so that we should have to transfer about 50,000,000 from the silver-using countries to the gold-using countries, but that would still leave a very large number using silver. I should like to ask if you have considered whether since those who have changed from silver to gold form so small a proportion of the total number using silver currency the alteration can be due so very much to that change?—I think the mere act of demonetization by Germany—they sold 28,000,000*l.* of silver, which is more than two years of the average production of the whole world, and they coined 87,000,000*l.* of gold, or three years' production of the whole world, those acts would, I think, produce that effect.

4447. I am simply asking your opinion. If the total population using silver is roughly 841,000,000, do you really think that 40,000,000 or 50,000,000 changing would make such a great effect?—Yes, I think it would.

4448. As I understand, you propose that not only England should enter into this, but India should also enter into the arrangement?—Certainly.

4449. Well, would not the effect be that 36,000,000 of people who now use gold would use gold and silver, and that 200,000,000 of people who now use silver would begin to use gold, so that in reality there would be a much larger number of people who now use silver taking to gold, than there would be of those who now use gold taking to silver?—My opinion of India is that they do not make those changes in their habits so quickly as one would suppose. I do not think my opinion is worth having upon it.

4450. Then you do not think the introduction of bimetalism into India would have any material effect?—I do not think so.

4451. In England, do you think that our having a bimetallic system here would cause us to use much more silver in the ordinary affairs of life?—No, I think we should do everything in cheques as we do now.

4452. Then it would not make much difference either in England or in India?—I do not think so.

4453. If this would make no difference either in England or India, what would be the difference?—We should hold silver in the Bank of England as against notes, and I suppose in Scotland too.

4454. Then the main difference in your opinion would be, as far as England is concerned, that the Bank of England would hold a certain amount of silver instead of a corresponding amount of gold?—Yes.

4455. Then I understood you to say that the adoption of this system would tend to raise prices 20 or 30 per cent. not at once, but gradually?—My opinion is that if it is true that it has been the cause of the fall in prices it is equally true that it would raise prices.

4456. But apart from any hypothesis, do you think it would raise prices?—I think it would, yes.

4457. But you would not by the process you suggest in any way increase the volume of the currency, would you? You have at the present moment certain countries which use gold and certain countries which use silver. You propose that instead of one half the countries, we will say, using gold, and the other half using silver, that all the countries should use both gold and silver. You would not therefore increase the volume of the currency?—The volume of the currency within the privileged legal tender area for that particular purpose would be increased.

4458. Suppose you have say 100,000,000 of people of whom 50,000,000 are now using gold, and another 50,000,000 using silver. You propose that the whole 100,000,000 should use both gold and silver, but you do not by that process increase the volume of the gold and silver or the currency; therefore I do not quite follow your argument why it should raise prices?—It has only reduced prices in gold-using countries, and I presume it would only raise them in those countries.

4459. Then you do not express the opinion to the Commission that the adoption of bimetalism would have any effect upon prices?—I think it would certainly. I did not say it would increase the volume of the currency all over the world; I said it would increase the amount of silver which would come within the privilege of being legal tender. I think it would increase the volume of currency in gold-using countries. I am of opinion that the existing state of things has been the cause of the general fall of prices, and if you restore the old state of things, that it would by parity of reasoning raise prices to the same extent.

4460. (*The Chairman.*) Why would it? Of course if a certain state of things produced a fall and you reverse it, that would produce a rise, but has it produced a fall, and why should it produce a rise?—Of course I believe it has produced a fall, and if

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it has produced a fall it is quite certain to produce a rise. I have never had this question put in this shape. I had only seen it in the shape in which I started, believing as I did that according to all the laws the state of things was bound to raise prices if it had reduced prices. All the statisticians in whom I put my faith said that was the case, that it had reduced prices. I said if that was the cause of the reduction of prices, it appeared to me that the restoration of the old state of things would cause them to rise. But now you put it in another shape, and my answer is that the fall has been in the gold-using countries, to whom the diminished production of gold is important, and where the increased demand has arisen. It is in evidence that the fall in prices in silver-using countries has been immaterial. The rise would consequently be in the gold-using countries, and not all over the world. The effect of silver coming into the circulation in countries now using gold would be precisely the same as a fresh batch of gold discoveries.

4461. (*Sir John Lubbock*.) I rather thought from the answer you gave me that you based your argument on the statement that there had been an increase in the use of gold for currency purposes and a diminution of silver, that there had been no countries which had abandoned gold and taken silver, but that there had been several countries which had abandoned silver and taken to gold. I understand you to argue that this would produce a greater demand for gold, and consequently it had diminished gold prices. Then I was going to put it to you how you thought you would reverse that by proposing that an empire which consisted of 200,000,000 of people using silver and 36,000,000 using gold, should use both gold and silver. It seemed to me that you would be going still further in the same direction, because you are proposing that 200,000,000 of people that now use silver should use both gold and silver, and 36,000,000 of people who use gold should use gold and silver, though I admit that the 36,000,000 use more in proportion than the 200,000,000?—The proportion of the circulation to the population is a prevalent element in the discussion of the currency question in America. I have never myself considered it of importance. But the gist of your question appears to me to be that in establishing bimetalism and including India we should create a fresh demand for gold over that vast population. If a single gold standard were enacted in India the price of silver and of all commodities told in gold would fall enormously, and the divergence between the two metals increase. But under bimetalism I fail to see how the fresh demand for gold need arise. Mr. Clarmont Daniel would seem to assert it; but, in order to do so, he was obliged to attribute it to the insatiable desire for gold which exists in India. There is, it is true, an unaccountable movement of gold to India now, it is believed for hoarding. But it is not conceivable that the population of India would insist on having gold in order at once to pay it away. If a man has so many rupees to pay away for rent, wages, &c., it is not possible to imagine that he will buy his gold for 2s., in order at once to pay it away for a debt of 1s. 6d., and yet, if we are to accept Mr. Clarmont Daniel's doctrine, that is what would happen. To suppose that the operation would be otherwise would be to admit that the rupee would rise to, and remain at 2s., and that bimetalism would be successful. I attribute the hoarding of gold in India to the fear that further tricks with silver may be played, and I believe that with the double standard much of that hoarded gold may come into circulation. The fact is that with regard to India it is difficult to draw any conclusion, because everybody would have supposed that the effect of this currency revolution would have been to raise the rupee price in India, and it has not done so. I am much puzzled to account for the fact that it has not.

4462. If commodities generally have fallen 25 per cent. and silver has fallen 20 per cent. then you would not expect silver prices in India to have altered?—

That is what has occurred, but I should not have expected it.

4463. And is not that the explanation of the fact that they have not so materially altered?—It may be, but still it has always astonished me that silver did not go more freely into India.

4464. You have not considered what the effect would be of introducing a gold currency into an immense population like that of India which at present has only a silver currency?—I have considered very often what would be the effect of making a single gold standard in India, and a gold currency there with that single standard. But if you ask me whether making India part of a general bimetallic system would entail the probability of their taking a good deal more gold, I repeat that I do not think it would.

4465. (*Mr. Barbour*.) I think you said in reply to Sir John Lubbock that if silver was raised 25 per cent. in value with reference to gold, that would increase the burden of the Indian debt by 25 per cent.?—The silver debt.

4466. Well now, if silver and gold were brought together in that way, would not the influence be exerted as much on the side of gold as silver, would not you bring down gold just as much as you brought up silver; you would increase the demand for silver by what you propose; you would reduce the demand for gold in exactly the same proportion in the two cases?—Yes.

4467. Therefore the increased demand for silver would bring up its value in commodities so much, the reduced demand for gold would bring down gold so much?—Yes.

4468. So that really the increase in the burden of the Indian debt looked at from a theoretical point of view would be only one half of the 25 per cent.?—Possibly.

4469. Has not India also got a large gold debt, and would not the burden of that debt, still treating the matter as one of pure theory, be reduced in the same proportion in which the burden of the silver debt was increased?—Yes.

4470. England has also a large gold debt?—Yes, and many corporations and individuals.

4471. And would not the burden of that debt on the English people be reduced in the same proportion?—Yes.

4472. And when all these losses and gains had been made in connexion with the gold and silver debts, should we not have merely got back to the conditions which prevailed at the time when the bulk of these debts was contracted?—I think so.

4473. (*The Chairman*.) I do not quite understand your answer to the question that the increased demand for the silver would be exactly equal to the decrease of the demand for gold. I understand your view to be in relation to India, as everywhere else, that there would be increased demand for silver and decreased demand for gold, and that the one would balance the other?—Given that the demand for circulation was the same, that is what I presume.

4474. If the two things are equal, if owing to your monetizing silver in certain countries there is an increased demand for silver and there is an exactly corresponding decreased demand for gold, would you not have the volume of the currency much as it was before?—If a rise in prices created a fresh demand for currency I do not think it would.

4475. Then you do not think that the two would necessarily correspond, the decreased demand for gold and the increased demand for silver?—When I gave the answers to which you allude I was under the impression that Mr. Barbour was speaking of India alone, he was speaking of the Indian debt.

4476. I should like to ask you with reference to the fall of prices a question or two. You are aware that *The Economist* index numbers which have been put forward as showing the fall of prices have been somewhat impeached?—I understand they have.

4477. You are aware that they certainly show during some years a very materially different result

from that which is obtained by taking a few other commodities and having other index numbers?—I am aware that it has been so contended; because I began by saying that I have taken *The Economist* index numbers and Mr. Giffen's figures as correct.

4478. You have not investigated that point?—I am not a statistician. It requires to be a trained statistician to understand them at all, therefore I start from the point that those numbers are correct.

4479. The monetary change took place in the year 1873?—Yes.

4480. Now would you not have expected theoretically, if these great results have flowed from that change, to have found decided symptoms of it in the five years following 1873 as compared with the five years which preceded 1873?—Yes.

4481. I find that if you take the figures of *The Economist* in the four years immediately following 1873, the total index number was higher in each one of these years than it was in the four years preceding 1873, and that it is not till the fifth year following 1873 that you get anything lower than the preceding years. How do you account for that?—I do not think you would get anything reliable out of me about it. I am quite unable to discuss the reliability of those index numbers; but I think that the prices in 1872 and 1873 reached in a great many of the principal articles almost to what was called the famine point, and that the effect of this currency revolution would naturally not occur at once in all these articles. It occurred almost at once in silver, but I think it could be shown from Mr. Giffen that in order to arrive at any proper conclusion on that subject you must take a much longer period than one or two years. I think he said the 10 previous years is the proper period upon which to base the calculations. With reference, however, to Dr. Soetbeer's criticism on *The Economist's* index numbers, I should wish to remind the Commission that though he finds fault with the method pursued therein, his final conclusion is not so very different. Dr. Soetbeer is so fair a man, not only in this special particular, but in others in which I have known him to be consulted, that I cannot help quoting what he says as to index numbers based upon different calculations to those of the *London Economist*: "If we compare the above surveys 'with one another, it must be allowed that the total 'index numbers calculated upon different methods 'do not show any such wide discrepancies as might 'have been expected. The extraordinary lowering 'of the level of prices in the last decade is shown 'equally by them all. Still, I am of opinion that my 'criticism of the method is not invalidated, and that 'even the attempt by making full allowance for the 'relative value of the articles to win confidence in 'the accuracy of the index number leaves important 'objections to be met."

4482. Have you considered at all the question how this monetary change affected prices, in what way it touched them? You would admit, I suppose, that it does not enter into the daily transactions which go to fix the price of any commodity on any given day?—

I admit that the daily transactions do not show the fluctuations of wholesale prices, but I think daily transactions are affected by the plenty or scarcity of the precious metals because those transactions are made in coin. In talking of prices I follow Mr. Mill's doctrine that it is impossible to generalise except in wholesale prices of commodities in general use as settled by competition. Something must affect prices. If it is not the demand and supply of the precious metals, it can only be the supply and demand of commodities; and when fluctuations occur in the prices of commodities arising from *their* supply and demand, it is probable that they will not all occur at the same moment. That is to say, that a glut or deficiency of tobacco will not occur the same year it occurs in wheat, and so on. If then it is observed that tobacco is going up and wheat going down, no one would attribute these facts to the precious metals. But if, as I now believe to be the case, the general range of commodities in general use, and open to competition, have sustained a great fall, and it cannot be asserted that there is any cause special to each of those commodities, then I can only attribute that fall to the monetary changes. If it be true that the precious metals, like other commodities, are liable to rise and fall at all, that rise and fall can only be shown by a general rise and fall of other commodities reckoned in them. To suppose otherwise is either to assert that while supply and demand affect all other commodities, they do not affect the precious metals, or that there is some other measure of a rise and fall in the precious metals than the general fall and rise of commodities. Now let us apply another test, if it be true that a general fall in prices has taken place and dates from 1873 or thereabouts, we might expect to find that the cause of that fall would also date from the same year. What are the other causes assigned? Some say banking expedients or economies. I have already endeavoured to show that these would account for a rise in prices, but could only neutralise a fall. But even supposing they could cause a fall they did not begin in 1873. Other persons point to facilities of communication. There has been no particular increase dating from 1873. The opening of the Suez Canal is the only change of that kind in the decade before 1873. The construction of ocean steamers and railways has been progressing steadily and uninterruptedly since 1845–50. There remains then but one other cause, namely, that suggested by Mr. Childers, the long peace between the greater producing and manufacturing countries. I have already admitted that this cause has had something to do with the fall. Prices are, however, still the record of the relations between commodities and the standard in which they are reckoned, namely, one or other of the precious metals. So much of the fall of prices as is due to increased production or peace must be in the long run an universal benefit. So much as is due to the arbitrary interference of German and French legislation founded on English economical teaching is, to my mind, disastrous, and calls for the application of the remedial measures which we suggest.

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—
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The witness withdrew.

Adjourned till Monday.

Nineteenth Day.

Monday, 9th May 1887.

PRESENT:

THE RIGHT HON. LORD HERSCHELL, the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.
MR. J. W. BIRCH.
MR. HENRY CHAPLIN, M.P.
MR. L. COURTNEY, M.P.

SIR T. H. FARRER, BART.
MR. C. W. FREMANTLE, C.B.
MR. W. H. HOULDSWORTH, M.P.
SIR JOHN LUBBOCK, BART, M.P.

MR. GEO. H. MURRAY, *Secretary*.

Mr. HENRY HUCKS GIBBS recalled and examined.

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Gibbs.
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4483. (*Sir T. Farrer*.) Mr. Barbour asked you a good many questions concerning exchange, illustrating the difficulties which arise from two varying currencies, and those questions bore particularly on the trade with India?—Yes.

4484. Are not all these difficulties as great or greater in the case of exchange between two countries one of which uses depreciated paper?—Yes. I will not venture to make it an exact comparison, because, as I have said before, I am not at all familiar with the trade with India, but my illustration of the whole matter has been derived from a paper-using country, Chili.

4485. And the number of such countries is large, and is likely to be very large is it not?—I will not prophesy. But it is now large.

4486. Well, one difficulty which Mr. Barbour mentioned was the difficulty of procuring the proper metal for remittance from one country to another where the metals and the currency were different in different countries?—Yes.

4487. That difficulty would only exist, would it, when the metal which is needed for remittance, that is the metal forming the currency of the country to which the remittance has to be made, is not to be found?—It would only exist for instance when you want to remit gold to a gold-using country, and gold was not to be found in sufficient quantity to use it as remittance freely.

4488. As regards India, silver can always or almost always be found or procured in London for remittance to India, can it not?—I cannot answer that question. I rather think I have heard of times when silver was not easy to procure; but ultimately it can be procured. With delay of course it could be procured.

4489. London is the great silver market of the world, is it not?—Yes. As to silver being procured, I remember at one time when there was a great demand for silver for the making of railways in India, silver had to be procured at very considerable difficulty. People had to send to France to get what silver could be gotten there, and had to collect five-franc pieces, suffering the loss that might occur by waste of the metal and the brokerage for collection, or whatever other expenses there might be.

4490. That was a case of extraordinary demand?—Yes, of extraordinary demand.

4491. Again, if gold is not remitted from India to England it is not for want of gold, but because there is a constant demand in India for the precious metals; is it not?—I do not think that is quite a sufficient statement. It is not only that there is a demand in India for the precious metals, but that the balance of indebtedness runs practically the other way, that is to say, the balance of indebtedness runs from

India to England, not the balance of trade, as regards commodities between the two countries, but taking into account the debt due by India the balance is the other way, and it would be unlikely that gold or silver should be sent hither.

4492. But the flow of specie is from England to India, is it not?—Yes, the flow of specie is from England to India.

4493. If gold is not remitted from India to England, it is not for want of gold, but because there is a constant demand in India for the precious metals?—What I meant to say was that it is not a question of the demand for precious metals that regulates the thing, it is a question of how a debtor is to pay his creditor. If India is the debtor it has got to pay in what it can; if it has got gold to remit and could advantageously remit gold, it would remit gold.

4494. But as a matter of fact the precious metals flow from England to India do they not?—Yes, I think they do.

4495. The reason for that is that there is a greater demand for these metals in India, they are sent there because it is profitable to send them?—I am not quite sure what you mean by a demand for them there. There is a demand, but there is not a demand for them, I take it, except for the purpose of hoarding, in which I include ornament, as there is a demand for other commodities. Silver is sent, not because there is a love for silver, but because silver is Indian money, and it is sometimes better to send money than bills.

4496. But what I wanted to get at is whether there is any real practical inconvenience in India not having a gold currency out of which to make remittance to England?—Certainly there is, because the regulation of the balance of indebtedness would be obviously much easier if the two countries were on the same basis, whatever it were.

4497. I am only speaking now of the actual remittance of the precious metals. Do you suppose that if India had a gold currency we should have gold remitted from India to England?—Surely we should, how else could they discharge the balance of their debt.

4498. How do they discharge it now?—They discharge it now in this way, that they in effect sell their silver at a disadvantage, that is to say, that there are India Council drafts which bring the money to this side.

4499. And why do they not buy gold and send it; there is plenty of gold in India?—The people of India pay their taxes in silver, which is their legal tender. The gold mohur is worth, say 20 rupees, and, therefore, no man will pay a gold mohur to discharge a debt of 15 rupees. The Government receives the taxes in silver, and has to pay 15,000,000*l.* here in gold. They might, as you say, buy gold mohurs or ingots (as they might buy any other commodity) and remit

them. They do not do so, because it costs them less, and is more convenient, to buy the gold here by means of Council drafts. If it were not for the 15,000,000*l.*, there would be no question of making remittances of treasure from India, because the balance of commercial indebtedness would be the other way.

4500. And why does it cost them less?—It costs them less because there is always a necessity for commercial remittance to India, and so long as balances can be settled by bill the expense of specie remittance is saved.

4501. It is because people prize gold in India, is it not?—I do not know; they hoard silver as well as gold in India.

4502. And is not that one reason why silver is always going to India from England?—As I said before, there is a demand for hoarding and for ornament, as well as for money, which constitutes a kind of demand, no doubt.

4503. Precisely, and that is the reason why the precious metals flow to India and not back from India, is it not?—

4504. (*Mr. Birch.*) It is the balance of trade that takes it?—That is what it is; the balance of trade.

4505. (*Sir T. Farrer.*) But this is part of the balance of trade?—Of course it is. All remittances from one country to another form part of the balance of trade or indebtedness. The only difference between exports of specie to France and those to India is, that those to France are merely payments, while a portion of those to India are for hoarding or ornament.

4506. (*Mr. Barbour.*) Have you ever heard of gold being exported from India to this country?—I do not know.

4507. Have you ever heard of silver being exported from India to this country?—Well in 1883–84 there were 9,815,000 rupees exported from India; in 1884–85, 18,873,000; and in 1885–86, 10,878,000, and so on. I do not think any came to this country. In one week of this year for instance 200,000 rupees, chiefly in coin, went to Persia; Aden, Arabia, Kutch and Guzerat, Kurrachee, British Concan and Marmagao. Marseilles took about 7,000 rupees, probably old French coin. Ceylon also frequently takes some. The amount of Indian exports of merchandise, 1883–86, was 2,571,295,698 rupees; imports 1,576,608,284. Treasure sent thither 422,238,919, and Council bills 523,500,000, producing 41,846,000*l.*; average exchange about 1*s.* 7½*d.*

4508. (*Mr. Fremantle.*) In what shape was the specie exported from India?—I cannot certainly say in what shape, whether gold or silver coin, or bullion.

4509. (*Mr. Birch.*) They had to pay their indebtedness. If they owed any money to this country they had to pay it. They paid it with gold, and if they could not get gold they sent silver. In exactly the same way if we owe to India we have to send silver, or gold if they prefer it. It is the balance of indebtedness which is thus settled?—Certainly; that is what I tried to say in my first answer.

4510. (*Sir T. Farrer.*) What I want to know is, why having both gold and silver they do not send gold and silver, or very rarely?—I may say, practically they do pay with silver; that is to say, that when the Council has got a certain number of silver rupees at its command, what it does is to draw for them. That is what drafts are, what bills of exchange are. They are movements of metal from one country to another.

4511. Gold and silver are only sent to pay debts, because they are the easiest and most profitable mode of paying debt. Is that not so?—I do not think your word profitable is good. They are only in a small degree an article of merchandise. For your words I should substitute “*when they are the easiest and least expensive mode . . .*” I do not think that you can come to that point exactly between two countries, that one country can say to the other:—“I owe you so many thousand pounds, I pay it in gold or silver, because it is the most convenient to me.” What happens is, that the country goes on with its merchandise, (and that in very large quantities from India,) and that the

exchange, as I have said before, is the index of how the balance is going; gold is sent, or silver is sent when it is convenient to send silver, but they send that which is ready to their hand.

4512. That is, which is the cheapest for them to send?—The best for them to send; not always the cheapest of necessity. You look upon it as if they turned over in their minds, “How am I best to pay that debt?” It is not so.

4513. If a man has got to pay for a cargo in Calcutta, he sends over a bill, or he sends silver, according as he can get the one or the other cheapest, does he not?—Or he sends another cargo of goods. If the rate of exchange is more onerous to him than would be the purchase and transmission of silver, he sends the specie. The rate can never rise beyond the specie point, but where there is unity of money between two countries there is no question of purchase, and its variable cost; it is the course of commerce which leads him to send that which is best for him to send.

4514. That which he makes most by or least loss by?—It may be so, but he may have to send goods; he may have the stocks which he wants to get rid of. It always comes to that. He sends that which suits him best.

4515. If he happens to find that he can do it cheapest by sending silver he sends silver?—Yes, he would certainly if he could get it. He would have to buy it, as he would any other commodity. The difference is that silver is money in India.

4516. (*Mr. Barbour.*) He does what is cheapest for him under the circumstances that exist at the time, but it does not follow that under different conditions there might not be some other course which would be still better for him to adopt?—No doubt.

4517. (*Sir T. Farrer.*) The principal evil of which we have heard, arising from the fluctuations of exchange, is its effect on producers in the two countries, giving as is alleged a bounty to the one or imposing a burden on the other?—Yes; that is one of the principal evils. Another is the additional uncertainty imposed on dealings between gold and silver using countries.

4518. On the assumption that gold has appreciated, this bounty or burden consists in the fact that the Indian producers' permanent expenses have remained the same whilst the real burden of the expenses of the English producer have increased?—The English producer's nominal wages remained the same, but the gold having appreciated, his real wages have increased. As regards the foreign producer what I have explained, I think clearly, is not that his wages remained the same; they remained the same in nominal amount, that is, in rupees or dollars; but as counted in sterling they are halved or diminished by a large percentage. They are diminished, that is the real point; we are speaking of commodities produced there and imported hither. The advantage that the producer gets there is that he spends less, counted in English money in wages in the country where he is, in the production of wheat, &c. to be sold here.

4519. He spends the same quantity of Indian silver?—The same quantity of Indian silver, but a less quantity of English money.

4520. And that silver for the present, according to the best evidence we have, purchases as much as it did before?—Yes.

4521. On the contrary, the English producer pays the same gold rent and the same gold wages that he did before?—Yes, the same gold rent certainly.

4522. And for a time the same gold wages?—And for a time the same gold wages.

4523. And there is his loss as compared with the Indian producer?—Yes, I am not quite sure whether that bounds his loss.

4524. The gold price that he gets is less, but rent and for a time wages in gold remain the same as before?—That is quite true, but I am not quite sure that that bounds his loss.

4525. I do not want you to say that that bounds his loss, but that is a part of his loss?—Yes.

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4526. The change you propose would do away with this so-called bounty, and its immediate effect would therefore be to diminish the advantage which the owner of rent and the wage earner now get from the present state of things?—The immediate effect would be to do away with the bounty; the effect on the rent-owner and wage-earner is wholly different and very much smaller.

4527. You wish to do away with this difference?—You have just said that the hypothesis is that it is a disadvantage to the owner in England.

4528. That is an advantage to the owner of rent and to the receiver of wages, and a disadvantage to the payer of rent and of wages?—So far as gold is appreciated, it must be an advantage to the rent-owner, and for a time to the wage-earner.

4529. I am speaking on that assumption?—So far, I say; but I would say more than that, because gold may be appreciated in respect of commodities generally, yet the rent-owner and the owner of the 3*l.* that he gets from Consols may be able to buy very little more of any of the necessities of life with his 3*l.* for the very reason that you spoke of as to wages, which also affects necessities of life; they are the last to fall; the consol-owner gets his 3*l.*, and the wage-earner gets his yet undiminished wage, but it is a doubtful assumption to say that he can buy very much more with it.

4530. Quite so, and meanwhile the wage-earner temporarily benefits because his wages remain the same while prices fall?—No; there again, the necessities of life are the last to fall, they fall with the wages. I think that the producer is the first to feel a fall, the wholesale dealer the next, the retail dealer the next, and therefore the necessities of life do not very much change; they do change, no doubt. In bread, for instance, the change there comes more rapidly than it does in other commodities, in clothes and so forth. Why it does I do not know, but I think it does so. I think the evidence is that it does.

4531. Then do you think that retail prices would be slower in falling than wages?—I think that retail prices and wages fall about in the same way. Retail articles are substances, are things; the labour that the wage-earner has to dispose of is not so tangible a thing as they are, and cannot be appraised quite in the same way. It does not so soon occur to the labourer to say, "Everybody is getting more for their commodity, I also must get more for my commodity," or must take, if they do, less, as the case may be. Mill explains the whole case and its causes, in B. III., c. 1., s. 5, "Before commencing the inquiry into the laws of value and price, I have one further observation to make. I must give warning, once for all, that the cases I contemplate are those in which values and prices are determined by competition alone. In so far only as they are thus determined can they be reduced to any assignable law. The buyers must be supposed as studious to buy cheap as the sellers to sell dear. The values and prices, therefore, to which our conclusions apply, are mercantile values and prices; such prices as are quoted in price currents; prices in the wholesale markets, in which the buyers take pains to know, and generally do know, the lowest price at which an article of given quality can be obtained, and in which, therefore, the axiom is true that there cannot be for the same article of the same quality two prices in the same market. Our propositions will be true in a much more qualified sense, of retail prices; the prices paid in shops for articles of personal consumption. For such things there are often, not merely two, but many prices in different shops, or even in the same shop; habit and accident having as much to do in the matter as general causes. Purchases for private use, even by people in business, are not always made on business principles; the feelings which come into play in the operation of getting and in that of spending their income are often extremely different. Either from indolence or insouciance, or because people think it fine to pay and ask no questions,

"three-fourths of those who can afford it give much higher prices than necessary for the things they consume, while the poor often do the same from ignorance and defect of judgment, want of time for searching and making inquiry, and not unfrequently from coercion, open or disguised. For these reasons retail prices do not follow with all the regularity that might be expected, the action of the causes which determine wholesale prices. The influence of those causes is ultimately felt in the retail markets, and is the real source of such variations of retail prices as are of a general and permanent character. But there is no regular or exact correspondence. Shoes of equally good quality are sold in different shops at prices which differ considerably; and the price of leather may fall without causing the richer class of buyers to pay less for shoes. Nevertheless, shoes do sometimes fall in price, and when they do the cause is always some such general circumstance; and when leather is cheapened, even if no difference shows itself in shops frequented by rich people, the artisan and the labourer generally get their shoes cheaper, and there is a visible diminution in the contract prices at which shoes are delivered for the supply of a workhouse or of a regiment. In all reasoning about prices the proviso must be understood, supposing all parties to take care of their own interest."

4532. Then you think that the whole benefit of this goes to the retail dealer?—For a time the retail dealer benefits. It should be clearly understood what the benefit is. It is this. He buys chiefly in the wholesale market, but the fall of prices does not at once reach him, and he sells at his former prices. I think we came to the conclusion in the Commission on the Depression of Trade that that accounted in great measure for Schedule D not having fallen off, that the retail dealer was making very considerable profits and doing very well, whereas the wholesale dealer was not.

4533. But do you not think that in such an article as bread or sugar, the wholesale price finds its way into the retail price very quickly?—No, I do not think it does very quickly, neither can it, because a drop of such and such an amount in the wholesale price cannot be so easily divisible into the small portions that your working man asks for. If he wants a couple of ounces of sugar he cannot get a corresponding reduction of price.

4534. Then you think that the whole benefit of this difference goes to the retail dealer, and that the effect of the change that you will make will be simply to take so much out of the pocket of the retail dealer and put it into the pocket of the producer?—I cannot say that, because he also will suffer. I only say it is a question of time. The wholesale dealer and the producer feel first that which the retail dealer feels later on. If by natural causes or any other the state of things is reversed, and prices rise, the retail dealer will be the last to feel the benefit of the reverse. It comes to the same thing to both retail and wholesale dealer; it is a question of time. It is not one man against another, but one time against another.

4535. The whole thing is a question of time, but I am talking of the interval between the period at which the fall begins and the period at which things are adjusted, and the question is which class gains and which class loses during that interval of time?—There is no question as it seems to me of an interval of time during which one class loses and another gains; at the beginning the retail dealer is gaining as compared to his neighbours; the time will come when the thing will alter, when the pendulum will swing the other way, then his prices having fallen will for a time remain low, and those of the greater dealers will rise. It is a question of time, as I said before, not a question of man against man.

4536. Then you think that during this interval the whole difference lies between the wholesale producer and the retailer, and that the wage earner is neither the better nor the worse, in fact that he is

not affected at all?—No; I do not say that at all. I say the effect, whatever it is, reaches the wage earner, but reaches him last in point of time, and the effect of a subsequent rise in prices will also reach him last in point of time, consequently he will be suffering while others are gaining, he is now gaining while others are suffering.

4537. But he is gaining? I will explain more fully what I mean. We have heard much of the effect of exchange; we are told that a bounty is given to the Indian producer; and that that bounty consists in this, that the relation of silver to commodities is much the same in India as it ever was, that the producer in India pays the same wages that he did and the wage earner in India gets the same quantity of commodities for his wages; whilst on the contrary in England the producer gets a smaller gold return than he did for his products whilst his expenses, which consist partly of rent and partly of wages and possibly of other things, remain for a time the same as they did before?—It is better not to use the ambiguous term “effect of exchange.” It is the “effect of the depreciation of silver in terms of gold” that is meant. Otherwise I agree that the facts are as you state them.

4538. Consequently the wage earner will continue to receive the same nominal wages for a time till things are adjusted?—“Has continued” I should say rather than “will continue.” From the beginning of the alteration, whatever it is, the wage earner, as I said, I cannot put it in simpler language, is the last to feel any change.

4539. The moment that the alteration has reached wages the disadvantage to the English producer will cease?—Certainly if it is sufficient, that disadvantage will cease; there are other disadvantages.

4540. (*Mr. Houldsworth.*) Is there not an immediate effect produced by the bonus enabling the creditor to send into this country a commodity and to compete at once?—That is the other advantage that I spoke of.

4541. To compete at once with the production of those labourers that are spoken of?—Certainly.

4542. Although if you do not take that into account wages may not fall and the labourer may be equally well off, but he is affected at once by the importation of the cheaper production which at once interferes with his own production, interferes with him at once in his employment?—That is the other disadvantage of which I spoke.

4543. (*Sir T. Farrer.*) The reason why the Indian product is cheaper is that the expenses have remained the same, and it would not have been cheaper than the English product if the Englishman's wages had fallen at the same time as prices. Is not that the real reason why the Indian product is cheaper?—The Indian product comes cheaper to England because the producer's initial expenses have remained nominally the same, but, being less in English money, they take less out of the gross proceeds; and this advantage may last till a fall of English prices lessens the gross proceeds. If wages fell here proportionately to the fall in prices, the English producers' position might be bettered; but there is no analogy between the fall in sterling wages of the Indian producer and the fall of wages here. The former is definite and immediate, the latter distant and indefinite. I rather wanted to answer another thing which grows out of your question, because it seemed to me to be a misapprehension of something that I had said; you spoke, I think, of the advantage to India. I have never said anything about any advantage to the country, what I have spoken of was the stimulus to production and the advantage to particular persons, and I instanced that which alone I knew, the case of Chili, where I myself was a producer. I am far from saying that it is for the advantage of India, far from saying that it is for the advantage of Chili.

4544. That is another question altogether, the advantage to the country as a whole; I am speaking now only of the Indian producer in competition with

the English producer?—Then we will keep to that point; but I should like to have that other question brought out, because it is a very important one; one of the Commissioners asked me that question about the advantage to the country, or rather intimated that he thought it would be a bad thing that a change in the status of silver should be made, because we should be arbitrarily taking away from India an advantage that it has; and I should like someone to ask me that question that I may say what I have to say about it.

4545. Let us confine ourselves at present to the question of wages. The advantage to the Indian producer over the English producer is, that he has to pay only the same wages as before, while the Englishman has to pay the same nominal wages, but larger real wages?—I doubt if that quite meets the case, because that would seem to apply generally to the Indian producer and to the English producer compared one with the other, whereas it is the Indian producer of produce for export to England, that is the only thing in question; to gold-using countries I would say; that is the thing it means, that is the only thing in question. It is, as I said before, that he pays a less sterling value in wages.

4546. But that is exactly the point that I want to get at. It does not matter whether it is the producer of cotton or the producer of wheat, the allegation is that the Indian producer gets an advantage because his wages remain the same while at the same time the English wages and rents are high?—That is not my allegation.

4547. Well that is what has been told us over and over again?—I can only answer for what I said myself. That is not my allegation. My allegation is, judging by my experience of production in Chili, that inasmuch as the wages and other items of initial cost paid by the Indian producer remain the same while the produce when remitted hither sells for gold which buys more rupees than it did formerly, his production is stimulated and his produce competes with ours.

4548. (*The Chairman.*) You mean that selling at a lower price he still can make some profit?—He still can make some profit, even selling at a lower sterling price. It has of course to be considered how much lower the price can be before his profit is destroyed, and ultimately it does get destroyed. That is why I have always said that it is only a temporary advantage.

4549. (*Mr. Birch.*) Will you just explain that “ultimately does get destroyed,” will you explain what you mean by that?—I mean that, by competition of foreign produce and also by the scarcity of our measure of value, the price in sterling of the Indian produce falls to such a point that the exporter from India gets no greater advantage than he did before the fall of silver; that is to say, that the reduced gold price will buy no more rupees than the higher price did before the demonetisation of silver. Besides this, the initial cost in rupees tends, though slowly, to rise.

4550. But Chili is a paper-using country?—Certainly.

4551. I think it is necessary to clear that up, because provided that silver went up in India, then they would not get the advantage which Mr. Chaplin was referring to the other day. Supposing silver went up then that advantage would cease?—Certainly.

4552. In the same way with Chili. Supposing it was rehabilitated in regard to its money position, then the money there would be more valuable, and therefore what went in wages would be more valuable, but the wages would not go up?—Yes, I said there were two causes which would destroy the temporary profit, one the rise of wages there to meet the depreciated character of the silver, that is, the silver would be itself depreciated, and the other the appreciation of gold here.

4553. But in the last question you brought in the element of time, and you said, supposing after a time it would be so, is it not the fact that the time would

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only have an influence provided that the silver went up there?—What I said about time was this. The profit to the Indian producer could be only temporary, and the resulting stimulus could last but for a short time, because wages would rise in India on the one hand, and prices would fall here on the other.

4554. (*Sir T. Farrer.*) I think in one of your answers to Mr. Chaplin you said that the owners of all commodities would gain by the adoption of the bimetallic system. Sellers of one commodity are buyers of another are they not?—In other words the probability is that prices would tend somewhat to rise. They would be guarded against continued contraction of the currency, and so far as the adoption of bimetalism would, though in no great degree, expand the currency, they would rise.

4555. The rise of general prices would so far as purchase and sale are concerned injure buyers as much as it would benefit sellers?—Of course they go together, but they do not go together in time, that is the thing.

4556. We are all buyers, and we are all sellers?—Yes, certainly; we are all debtors and we are all creditors.

4557. Therefore it may signify whether prices are rising or falling, but it does not signify to the community whether prices are high or low?—Certainly not.

4558. And the distinction is not between the owners of commodities and the owners of gold, but between creditors and debtors, is it not?—I admitted that it does not signify the least in the world—no, I am not sure that I can say that, because if prices remain at a very low point it may be destructive of certain industries.

4559. Not if all prices are equally or proportionately low?—Well, but all prices never are. That is only theoretical. Theoretically you are perfectly right; practically it does not come to be so.

4560. Practically they do not go together?—They do not go together.

4561. You think that one of the advantages of bimetalism is that it would tend to raise prices, and that that would give a stimulus to production. Do you think that it signifies whether you gave 2*l.* for a thing or 1*l.* for a thing, provided everything else rises or falls in the same proportion?—That is the old story of halving the money in one's pocket.

4562. But I do not think you mean to distinguish between the owners of commodities and the owners of gold?—Not at all.

4563. Because that was rather the effect of the question?—But let me *in limine* protest against your last statement of what I desire. You said that the thing to be desired by bimetalism in my view was that we should have a continuous rise of prices. I have all along said that a tendency to a rise rather than to a fall in price is a subsidiary result, a probable subsidiary result of that which I desire.

4564. I was rather referring to your answers to Mr. Chaplin than to your general evidence. He asked you whether you did not think it would be an advantage to the owners of commodities, and you said you thought that on the whole it would stimulate production and trade?—Yes.

4565. Over and above the question of a stable ratio?—Yes.

4566. (*The Chairman.*) Would not there be a danger from that very thing; might not one effect of rising prices be, and has it not been, so to stimulate people going into trade as to bring down these prices very rapidly?—Certainly, over speculation, over industry if one may use the phrase, may be induced.

4567. (*Sir T. Farrer.*) You will bear me out in this, will you not, that if you look back to our old political economists, Adam Smith and Ricardo, you will find that the great thing they were afraid of was depreciation of the standard and a rise of prices in consequence of depreciation?—Yes, since their time

too, and within our own memory that apprehension has been entertained.

4568. (*Mr. Chaplin.*) And those views were of course expressed, were they not, long before the present state of things existed?—Oh yes; it is Adam Smith and Ricardo.

4569. (*Mr. Barbour.*) Do you see any danger of the depreciation of the standard at present?—I do not.

4570. (*Mr. Birch.*) But I think Ricardo rather referred to the paper currency?—Yes.

4571. And they had in view always the rise and fall of the circulation of paper had they not?—I think they had, but still what impressed them was the fear of over much depreciation, whether it is in one sort or another.

4572. (*Sir T. Farrer.*) Well then it is not the owners of commodities *versus* the owners of gold that we have to consider, it is debtor *versus* creditor. If bimetalism were to raise prices it would or it might slightly benefit debtors at the expense of creditors, would it not?—I think it might, just as creditors have been hitherto benefited, or since 1873 benefited, at the expense of debtors. Just so far.

4573. And you would alter this by recurring to what was the state of things before 1873?—I should be most pleased to do that, but we cannot be quite sure that it is attainable. We can without the least difficulty recur to the state of things before 1816 if England is willing, but to return to that before 1873 is quite another thing.

4574. But you would bring back the silver and gold to a ratio of 15½ to 1?—I think that would be the best. I have given reasons why I think that.

4575. That ratio was maintained pretty well up to 1873, was it not?—It was.

4576. Now to return for a moment to the *modus operandi* of the bimetallic ratio, your view that when a bimetallic country is denuded of one metal it will still keep the ratio steady, is not necessary to the bimetallic theory?—That rather depends on what you mean by “keeping the ratio steady,” and what by “the bimetallic theory.” The ratio is fixed by law. Everyone can pay his debts in either metal coined thereat. Nothing can make it unsteady but the repeal of the law. If you mean “keeps the price of gold and silver steady in silver and gold using countries respectively,” then I answer that my view as to that is not necessary to the bimetallic theory, by which I understand the theory that it is possible and desirable so to link gold and silver together by law that both shall play their part as heretofore in the money work of the world.

4577. The argument of bimetalists generally is, that if the chief commercial nations join, it is tolerably certain that all of them will not be denuded of one of the metals?—Yes, I may say that none of them would be denuded of either of the metals.

4578. (*Mr. Courtney.*) Do you lay that down absolutely whatever the ratio?—Certainly, if they all agree on one ratio.

4579. And whatever that ratio?—Whatever that ratio, if they all agree.

4580. So that if the ratio were let down to two to one?—Yes, certainly, if all agreed.

4581. There would be no denudation?—I have always asked the question, whither would the one metal go, and nobody has ventured to answer it.

4582. Would there in that case be continued production of the other metal?—That is quite another thing. One of the metals would very probably tend to assimilate the production to the ratio. That is possible. I will not answer for what might be because I am not a miner.

4583. But you know the motive of miners?—And I know that for that reason it is difficult to predict what will happen. I hardly know that any miner will ever stop working, while he has or can borrow capital to work with.

4584. Theoretically at all events it might have considerable effect upon the production?—In such a case as you mention I think it might. The measure of

value would be enormously increased and the price of labour would at last rise in proportion.

4585. And it might also have an effect in getting that one metal discharged from its use as coin and converted simply into use for ornament?—I doubt about ornament considerably. If you mean the dearer metal, the one least produced, I do not believe it.

4586. You do not think that if such a ratio were established gold might almost cease to be produced. There would then be a consequent withdrawal of gold from currency in order to make up for that?—Gold would rather be brought out from hoards or withdrawn from the arts before it would be withdrawn from currency. There are at least 800,000,000*l.* sterling of gold in existence as money, and it is computed that there are some 400,000,000*l.* of gold besides. There is also a nearly equal quantity of silver (reckoning at 15½ to 1). It has taken 1,000 or 2,000 years to bring the stocks to these amounts; I do not think we need trouble ourselves with what will happen afterwards to either metal.

4587. (*Sir T. Farrer.*) But you admit that much inconvenience might be suffered by a single nation who should adopt the bimetallic standard, and that it was in fact suffered by France?—Whatever inconvenience there may have been France suffered it; but I have never seen an intelligible account of the inconvenience. M. Pierson, late Professor of Political Economy, and now Governor of the Bank of the Netherlands, puts succinctly what can be said as to the change of metals in France. He writes on pp. 67–9 of his book on Political Economy: “Only in the first quarter of this century was there a mixed circulation. In the second, gold was driven out by silver, in the third, silver was driven out by gold. In the fourth, after the new monetary measure of Germany, silver came back. Is it no evil for a country when its monetary system is wholly revolutionised every twenty or twenty-five years?” He answers, and I answer, that whatever might be the inconvenience in a small and single state like Holland no practical evil would result to a group of states such as he had mentioned—Holland, England, Germany, the Latin Union, and the United States. Any depreciation of either metal and consequent demand for it for coinage would speedily cause it to rise again to the level. “There are,” he says, “210,000,000 men in those countries using some 670,000,000*l.* sterling of gold. How long, think you, would the relative value of the two metals show a depreciation of silver if they should really set to work to part with this mass of gold and get silver for it?”

4588. Will you tell the Commission how you understand the Gresham law to operate in practice?—If two kinds of money circulate in a country the cheapest will drive out the dearest. That is the “Gresham law.” But what is meant by cheapest and what by dearest is not always clearly understood nor how the driving out is to be accomplished, nor what is the effect on the country so situated. The driving out of one metal by another is caused in two ways, according to the relation of the bimetallic country either with another bimetallic country or with a monometallic country or both. I will take the case as between two bimetallic countries with different ratios. One ounce of gold and 15½ ounces of silver had the same purchasing power in France in the year 1834. One ounce of gold and 16 ounces of silver had the same purchasing power given them by law in the United States in the same year. Gold then was under-valued in France as compared with the United States, for the Frenchman could pay his New York creditor a debt of 16 ounces of pure silver (\$20·696) with the one ounce of pure gold with which he could only pay his French creditor a debt of 15½ ounces (Fr. 107·1342). Silver was under-valued in the United States, for the New Yorker could pay his French creditor a debt of one ounce of pure gold (Fr. 107·1342) with 15½ ounces of silver, while he would need 16 ounces to pay his neighbour in New York. Gold therefore began to flow out of France, and silver to

flow out of the United States. They could not, *both* of them have been the dearest metal, in the sense of either having cost more to produce than the other. Again, if France had by law altered the ratio from 15·5 to 16·25, while the double current was setting, as just now described, it is certain that it would have been reversed, that gold would have flowed back to France, and silver to the United States. No one could suppose that such a movement had any relation to the respective cost of production of the two metals. The “dearer” metal, then in the sense of the Gresham law, is that to which a higher value is attached in another country than that which is attached to the other metal, its monetary mate; and the above process is that which takes place between two bimetallic countries, the change from one to the other metal being accomplished by transactions which seem to the actors in them profitable rather than injurious to themselves.

4589. Do you think the process between a bimetallic country and a mono-metallic country to be such as you have just described?—Not altogether, although in that case also the change would be for the most part automatic rather than the consequence of choice or of deliberate acts. The current from the bi-metallic country would flow outward as described in my last answer, but there would not necessarily be any inward current from the other side. If we take the case of France and England, the course will be this: When the exchange is against France, gold will be exported to redress the balance. The circulation in France will be contracted, and such silver as is produced or can be attracted from other states will be sent in and will fill the void. Meanwhile the process, whether as described in my last answer or in this, is a very slow one, both because of the fluctuations of the balance of indebtedness and because the holder of the under-valued metal (gold in this instance) asks an agio for the waiving of his right to pay in which he will, and this affects the exchange and delays the exodus of the gold. The debtor who sends the gold makes a loss, but the provider of the gold makes a gain; so France is none the worse. In short, whichever be the active cause which carries away the “dearer metal” from a bimetallic country, I fail to discover the “misery” which the country is supposed to suffer; and as to the “inconvenience,” we in England are very ready with our pity for the sufferers, but I wait for an intelligible description of the mode of suffering. I do not remember to have seen it pointed out by any English monometallist, and the groans of the suffering French bimetallic have not yet reached my ears.

4590. (*Mr. Courtney.*) When you draw the distinction between automatic and deliberate action in that question, do you mean anything more than this, that the merchant or trader is not at all times conscious of the exact laws under which he works?—That is so. He is not conscious of the laws under which he works. He finds the one a more convenient, a ready way of exporting specie to redress the balance of trade, and so ultimately and by slow degrees, and very slow degrees, the change takes place. I mean to say that the nation does not set to itself this problem, “It will be better for us to get rid of our silver,” and send it away, nor does the other nation say, “It would be better for us to get rid of our gold, and send it away: How shall we set about it?”

4591. Though not conscious of that, it is none the less a fact, that to their action is due the bringing about of those results?—Certainly, the individual senders act in that way, because of the reasons which are present to their minds. The nation gets rid of one or the other metal without having any national wish for its expulsion.

4592. (*The Chairman.*) But I gather that you would say that because it is not the deliberate act of the nation, but simply automatic, arising from business transactions with individuals, it would be likely to be more slow in its progress?—I would say automatic, as arising from the natural course of commerce, and because the two countries have so arranged matters that it would necessarily be so, one having

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chosen to have a ratio of $16\frac{1}{2}$ to 1 and the other $15\frac{1}{2}$ to 1, the 16 being an under-valuation of silver of necessity, and the $15\frac{1}{2}$ to 1 being thus an under-valuation of gold of necessity. It is clear that neither nation perceived the significance of establishing different ratios.

4593. (*Sir T. Farrer.*) That makes it to the interest of the particular dealer to send the metal in the way in which you have described?—It is the readiest way. He does not calculate on the expulsion of one metal; I do not think he calculates that, but it does happen so.

4594. (*Mr. Birch.*) As we are talking of a business transaction, I do not exactly understand you to say that they do not know what they are doing; that they do not select the metal which pays best?—I did not say that; They, the individual merchants, do make the selection; but they do not set themselves to get silver out of their land on the one hand or gold on the other. It is not the preference for one currency or the other on the part of France or the United States, but it is that the particular trader or bullion merchant, or whoever it is, who has to remit specie from the one country to the other, finds it to his advantage to remit silver from the United States; gold from France. But it does not matter whether it is a dealer or a merchant.

4595. Every merchant now-a-days has his eyes open when he has to balance transactions. He looks of course to the metal which suits best in the country that he is sending it to?—That is what I say, he can pay a debt with a smaller quantity of silver in France than in New York; he can pay a debt with a smaller quantity of gold in America than in France. It is his interest that teaches him. The merchant, the banker, the bullion dealer have nothing else to consider but their own interest, but I mean to say that it is not the love of one metal as currency rather than the other, but it is the particular interest of the particular individual in each transaction; the result of a multitude of transactions being that the silver left the United States, and at the same time gold left France.

4596. (*Mr. Houldsworth.*) What you mean to say is, that if there was no indebtedness between the two countries, then there would be no driving out?—Mr. Birch has, I think, correctly understood what I mean. I want to point out that it is not a question of preference for gold rather than a preference for silver, but the fact of another country having made such and such a law, which makes it better for you to send gold to that country, and the country from which you have sent gold has made a law which makes it better for them to send silver to your country.

4597. (*Sir T. Farrer.*) It is not even a question of indebtedness; it is that the man who has gold in France finds that he can make more by sending it to America, and that the man who has silver in America finds he can make more by sending it to France?—That I do not exclude. That may be so also.

4598. The indebtedness of one country to another makes that operate more strongly at particular periods, but it would be the interest of the bullion dealers of one country to exchange with the bullion dealers of the other?—Certainly, but all I mean to point out is that Mr. Birch is quite right in saying that it is the indebtedness which is governing the whole thing; the action of the bullion dealers would not be worth while doing if the course of trade and the wants of merchants did not give them the opportunity.

4599. If it were not for a certain premium that they get from the state of trade?—If it were not for the sort of current which is setting, which makes some people demand remittances which they provide.

4600. And give something for that remittance?—And give something for it; of course they get a profit.

4601. And it would depend on the different laws made, whether it would be worth the bullion dealer's while to do it without that state of trade?—Yes, that is so.

4602. Do you think it no inconvenience, that a community which has been accustomed to gold as its standard should have to adopt the more cumbersome metal silver?—Do we now pay in gold from hand to hand? Why should anyone suppose that we should then pay in silver? The Gresham law relates to the "dearest metal" and not especially to gold. How would it be with a nation who lost silver for gold; the United States for instance between 1834 and 1873? They were not eager for the change, which was by many viewed with apprehension; but I suspect that the people at large were quite unaware of the change while it was in progress. They woke up to it afterwards, and then you had those discussions in Congress about the fact of small-change silver having departed.

4603. Then referring back to what you said about the cost of production. I do not understand you to deny that the value of the precious metals is affected to some extent by the cost of production?—Certainly not. There is, indeed, an obvious difference between the effect of the cost of production on the value of the precious metals and its effect on the value of other commodities; which is, that the latter are produced to be consumed, and the former are produced to be preserved, and that consequently the cost of production affects the latter rapidly, and the former almost imperceptibly; but the tendency is the same in both. The cost of production of the stock of tobacco existing in the world, including the year's crop, can be readily estimated; but who shall estimate the cost of production of the 1,500,000,000% of gold and silver money now in use in the world, the result of the accumulation of a thousand years. The cost, however, will be found to affect the value in this way: as the amount of money-metal increases in proportion to commodities, all commodities, including labour, will tend to rise, and when the cost of the labour reaches and surpasses the value of the metal extracted, the mines where that happens will be, sooner or later, closed; the quantity of precious metals will tend to approach its former level as compared to commodities, prices falling accordingly. [*See Mill III. 9.*] But this is a process of very exceedingly slow working; and my object is to show, that it is not that which in practice causes a metal to be dear or cheap in the sense of the Gresham law. I may mention that I was talking yesterday to a mining engineer who had charge of one of the sections of the Comstock mine. He said it was absolutely impossible for anybody to make the least computation as to the cost of production of an ounce of silver. It was quite easy to say, if you had got your shaft made, and if the shaft had come upon a silver mine, that the amount of silver that you had gotten out of that particular mine cost you so much, but then you would have to cut off arbitrarily your capital account at the time when you began to find the vein. For every vein that was found in the Comstock mine shafts without number were driven in unproductive land. If you take the country at large, all that expense should form the capital account of the undertaking; and he said he did not believe there was any silver raised very much under 10s. an ounce, putting the loss of capital to enterprisers in that way. This was of course a hyperbolical estimate, not an accurate computation, but it showed his view.

4604. (*Mr. Courtney.*) But you would allow that the production of the metals does vary very much with the price realised and the cost of its production, and that in spite of the element of chance, which is such a strong motive on the part of miners. The production of metals, for instance, copper in a particular part of the world goes out because it is produced at much less cost in another part of the world?—Most certainly; but I think copper stands on a very different footing. Copper is made to be consumed, not so fast as wheat indeed, but the case is very different with copper from the case of that which is meant to be preserved. The cost of production, as I have said here, must affect the precious metals like everything else, but the time that it takes to effect it is enormous.

4605. (*Mr. Birch.*) Surely the inference would be the same, because you only get copper out of mines, and change it for commodities, and you only get gold and silver out of mines for the same purpose?—Copper is that which is for destruction, the other is for preservation. What is the amount of copper in the world? A good deal, probably; but how much of the present stock was produced 50 years back? Very little indeed; but gold dates for thousands of years back. One is a mountain, a heap that has been continually added to, the other is a heap that has been added to and continually brought low.

4606. (*Mr. Courtney.*) Did not the discoveries of gold in California and Australia dry up sources in other parts?—I have heard people say that they did, but I do not know it.

4607. Some—not a very large amount—but some amount came from the Rhine countries before that?—So there was gold in England, but I doubt that it was not the cheapness or any depreciation of gold that would have prevented the working of gold mines in England, but because the gold mines, such as they were, were exhausted. There is such a thing as exhaustion of mines. When you want wheat you plant it; you cannot plant silver or gold; you have to look for it.

4608. The copper mines of England have ceased to be worked, not because they were exhausted, but because copper is produced much more cheaply elsewhere?—I do not know how that is. I suppose it is so. But there is a great difference between copper and the precious metals. Those copper mines you say are not exhausted, but the demand at a commensurate price is exhausted. The copper costs perhaps 50*l.*, and nets 40*l.* a ton. At the end of a year you make up your accounts and know your loss. If a gold or silver mine is *exhausted* the result is the same, and is as soon known. But the demand for gold and silver cannot slacken. Extraordinary production has no other effect than a rise of prices over the whole mass of commodities, and that effect is necessarily exceedingly slow, and not obviously and at any moment clearly traceable to its true cause.

4609. (*Sir T. Farrer.*) In fact, the real difference between this and commodities that are consumed is, that here you have a large reservoir, and the flow depends on the height of the water in the reservoir rather than the amount that is trickling into it at the moment?—That is true.

4610. It is sometimes the case, as it was with the gold of Australia and California, that the discoveries have a very rapid effect?—Certainly; both the abundance and the facility, the abundance that exists and the facility of bringing it into use.

4611. (*Mr. Birch.*) But your experience in South America must have shown you that gold was produced there; the washings of the rivers and so on, and then the cost of production was so great that they stopped washing the sands?—I think the small quantity of gold that was produced there, except what was produced in the silver, was rapidly exhausted. There was no great quantity; no great deposits of gold in South America. With the exhaustion of the deposit, the cost of production increases.

4612. (*Sir T. Farrer.*) We hear and see constantly arguments about bi-metallism, founded on a supposition such as the discovery of a mountain of silver; do you think that extreme cases are fair tests of the theory?—Certainly not; else I should retort the argument which sets forth this island's commercial supremacy, as caused by her having a gold standard, by asking if the sole possession of a gold standard of value would make the island of Jersey the commercial mistress of the world. Such things are absolutely valueless, except as a sort of thesis for discussion.

4613. Is not the real answer to an extreme case of that sort, that it would cause as great difficulties under a mono-metallic system as under a bi-metallic system?—Yes. The fear is chimerical, and the difficulties unimportant; but whatever they might be, they would be doubled in its effect on a country which has silver only, as I showed at the last examination.

4613a. You think the adoption of the bi-metallic system would not make it necessary to make any change in our token coinage?—Certainly not. No standard silver money would be coined except double florins, which would bear a similar relation to the token coinage to that which the 5-franc piece does to the French tokens, the 5-franc piece being 900 millièmes fine, and the tokens 835. A shilling would still stand for the 20th of a pound sterling, whether that pound was 113·0016 grains of pure gold or 1751·5247 grains of pure silver. If, indeed, silver should still further fall, it may be necessary to call in and re-coin the silver tokens, because the nominal value would be so far in excess of the real that the temptation to the illicit coiner would be irresistible. This illicit traffic has already begun. The rehabilitation of silver, by the adoption of a bi-metallic standard, or otherwise, would make such illicit coinage impossible.

4614. Referring to your answer to question No. 3607, in which you state your views concerning the operation of a bi-metallic law in the case of a country denuded of one of its metals, *e.g.*, France, and in which you state, if I understand you, that the restoration of the operation of the bi-metallic law in France would at once restore the price of silver; will you direct your attention to a mono-metallic silver country such as India, and say whether the establishment of a bi-metallic law there would have the same effect?—I do not think it would. To answer you properly I should first state how far the exchange between bi-metallic and mono-metallic countries seems to be essentially different from that between mono-metallic countries using different metals. I. The exchange between two mono-metallic countries using the same metal is limited by the cost of transmission of the specie (including interest), and varies with the greater or less demand for bills. II. The exchange between a bi-metallic country and a mono-metallic country will follow the same line. It will be counted in that metal which is the monetary standard common to both, and will vary precisely as it would between two mono-metallic countries using the same metal. In both cases the exchange is based on money. III. The exchange between two mono-metallic countries, one using gold and the other silver, is, on the contrary, based on the ever-varying equivalence of the two several commodities, besides the fluctuations consequent, as in the other cases, on the cost of transmission and on the balance of indebtedness. Thus France, being bi-metallic, and the exchange being counted in the gold money metal common to her and England, the price of silver in London oscillated about the point of 60*d.* per ounce, which corresponded approximately to the French ratio of 15½ to 1. Silver, again, being the standard common to France and Germany (before 1873), and the exchange being counted in silver, the price of gold in Germany must have oscillated about a point corresponding to the same ratio. These two are examples of the second category. India is, in its relation to England, an example of the third. There is no true par of exchange between the two countries, and no point of stability in the daily exchange. What would happen if India became bi-metallic? Would the rule hold good that the exchange would be based on the money metal common to both countries, and should I be able to draw on India as I could on France for the money coined from a bar of silver sent thither at an exchange which would give me 60*d.* per ounce, and if not, why not. Let me assume that the ratio adopted in India would be 15½ to 1. The effect on bi-metallic countries, whether their bi-metallism was pure or limping, would be, of course, *nil*. The effect on India herself would be, at least at the outset, *nil*. The measure would be wholly inoperative there. No one would pay a debt in a gold mohur which would bring him 20 silver rupees, when he could pay it with 15½ rupees in silver. If it were operative, it would not have any present effect in steadying the price of silver here,

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because the exchange on which that price would depend, is, as everyone knows, based at present on the equivalence of money and a commodity, and not on an identity of money metal. But if the resumption of pure bi-metallism in Europe, or any other cause, should re-establish the silver exchange, then the rule would hold good, and India would almost necessarily base its exchange on the money metal common to it and England. So, also, if the ratio adopted in India were that shown by the silver price of the day, say 20 to 1 (which, however, would bring with it much difficulty if $15\frac{1}{2}$ to 1 existed anywhere else) then it would be indifferent to the Indian whether he paid his taxes in a gold mohur, or in 20 silver rupees, and in course of time the position as respects England would be the same as was that of France, and the price of silver here would always oscillate about the point corresponding to a ratio of 20 to 1.

4615. Would you not contemplate if the bi-metallic system is adopted, that both England and India should be parties to it?—Oh yes, certainly; but what I have remarked upon there was the supposition that India was made bi-metallic alone. That was the answer to that question, because you said, taking a mono-metallic country.

4616. (*Mr. Barbour.*) May I ask why you would wish to include India in the bi-metallic union?—Because I think the more that is included the better for the stability of the whole thing.

4617. For the greater portion of Indian transactions I suppose silver would be better than gold?—India would continue to use silver, because it is the most suited to her commerce.

4618. (*Mr. Courtney.*) Is not the outcome of your answer this, that the establishment, in a country which is at present mono-metallic, and having a cheaper metal, of a ratio giving that cheaper metal a value greater than it possesses would be of no effect whatever?—That which you call the cheaper metal, namely silver, would not by the establishment of bi-metallism in India alone be given a value greater than it possesses. It has had no material fall in value in India, and would not be raised. The outcome of my answer is that bi-metallism there only would have no present effect, either in giving it higher or lower value.

4619. You must establish bi-metallism in a country with a ratio which gives the metal in use in that country a less value than it at present possesses. You must give the gold as regards silver a less value 1 to 15 instead of 1 to 20. Then if you established bi-metallism in England you would get a movement?—A movement, yes; but you might establish bi-metallism in France where gold and silver are at that ratio $15\frac{1}{2}$ to 1. To give gold in England a value of 1 to $15\frac{1}{2}$ instead of 1 to 20 as regards silver, would not of course lower its value as to other commodities to a corresponding extent, it would only lower it so far as any slight addition to the mass of the measure of value resulted. So in India; if India were included in a bi-metallic union, the effect would be slightly to depreciate its currency in common with the rest of the currency of the bi-metallic nations.

4620. (*The Chairman.*) When you speak of establishing bi-metallism you always assume, do you not, free mintage and legal tender?—Certainly; and I say in answer to Mr. Courtney, supposing you establish bi-metallism in France, that is to say, free mintage and legal tender, whereas now there is only legal tender, there would be no such effect as that supposed; one metal is not dearer or cheaper than the other in respect of commodities.

4621. (*Mr. Barbour.*) But if you established bi-metallism in England at the ratio of the present day, you would make no immediate change in England?—None whatever.

4622. But you would prevent future changes?—Future changes. It was suggested to me the other day that it was not impossible that the United States might agree, not to open their mints, but to open

their treasury, to all the silver that might be brought to them, at the price, of the day. The effect of that would be that the price, 20 to 1 or whatever it might be, would become the ratio and would not vary.

4623. (*Mr. Courtney.*) If you establish in India bi-metallism with a ratio of 1 to $15\frac{1}{2}$, there would be no effect produced?—No present effect.

4624. If with the ratio of 1 to 20?—Then of course there would be the effect described in my answer to Sir Thomas Farrer.

4625. If with a ratio of 1 to 30?—Then an effect would be produced the other way. If you mean in India alone, the Indian would pay his tax of 30 rupees with one gold mohur instead of 30 silver rupees, and would export the remaining ten, for which, on the supposition of 20 to 1 being the price in England, he would get half a sovereign; and this would go on until the price was brought down to the ratio. If you mean as member of a bi-metallic union, the effect would be a great contraction of the currency primarily in India, France, and Germany, and ultimately everywhere.

4626. So that it depends really not upon the establishment of bi-metallism by itself considered in India, but the ratio adopted in India?—Yes, but bi-metallism involves the establishment of a ratio.

4627. You would say arbitrarily the introduction of bi-metallism into India would be of no effect. It depends on the ratio?—That is quite right.

4628. (*Sir T. Farrer.*) I should like to ask you, supposing that England adopted bi-metallism and France adopted bi-metallism at a ratio of $15\frac{1}{2}$ to 1, what would be the effect on the value of the silver now in France?—The effect of that I stated in a former answer. The particular extent of the effect I cannot define, but the uncoined silver in France, if there be any, would of course be elevated to the same position as the coined silver. It would have no effect upon the coined silver in France, except a slight depreciation measured by the amount of the enlargement of the measure of value.

4629. Would it give no additional value to it for the purpose of exportation?—It would be a means of exportation just as the silver in England was a means of exportation in 1848. It would be money in England as well as in France.

4630. Would it not raise its value in relation to gold?—Yes, I should say it would raise its value in relation to gold. It would have an export value as well as an import value; but in France its value in relation to gold would not be altered.

4631. Therefore it would tend on the whole to increase the volume of the currency in gold as well as in silver using countries?—Yes, to the extent that I mentioned in my answer to Mr. Birch.

4632. (*Mr. Fremantle.*) Do you think that a universal bi-metallic arrangement between the civilized countries of the world would have the effect of bringing into actual use in France, in daily transactions, the large amount of the silver five-franc pieces now lying idle in the cellars of the Bank of France?—I suppose you mean by "actual use" passing materially from hand to hand. I am unable to judge of that; you must ask that of a Frenchman, but I know that in Germany there is said to be a great lack felt of the thalers. They wish they had more thalers. That is, I think, the case with German manufacturers. I have always said that I believe the result of the establishment of a bi-metallic law would be that each country would find itself in possession of the metal, as coin, which was most suited to its trade. The five-franc pieces in the Bank of France are not, I think, more "idle" than the gold in the Bank of England. They circulate, I suppose, in the form of notes.

4633. But even at present in France and Germany there is no restriction upon the legal tender of the thaler or the five-franc piece?—None at all.

4634. (*Sir T. Farrer.*) Then supposing that we had the bi-metallic system established between England and India in the same way at a ratio of $15\frac{1}{2}$ to 1, that would raise the value of Indian silver, would it not,

in relation to gold?—In the same way; that is to say, for export purposes, not for internal purposes. There is no more than is wanted in India apparently for internal purposes. It would be a very convenient remittance, exactly in the same case as it was stated before the Committee of the House of Lords in 1848, that silver was a convenient remittance for us, that is all.

4635. But would it not have the effect of raising the value of silver in relation to gold altogether?—Yes.

4636. Therefore it would somewhat raise the value of the Indian currency, and somewhat depreciate the value of the English currency?—I think it would not raise the value of the Indian currency at all, because the value of the Indian currency has not fallen. It bears the same relation to commodities in India that it did before; no difference would happen therefore, except that, as before said, that, with all other currencies, would probably show a slight depreciation—in other words there would be some rise of prices.

4637. Then would it not depreciate the value of the English currency?—I have all along said that in so far as you bring into the mass of currency in the world any silver which is now not available for coin, not available for a measure of value and medium of exchange, in so far you will depreciate the whole mass of currency existing.

4638. You will therefore depreciate the value of currency here in England?—To that extent; how far is quite another thing.

4639. But that would be the tendency?—There would be no “tendency.” So far as there are 5, 10, or 20,000,000 of silver that have been thrown back into the mines, so to speak, by being put altogether out of either direct or indirect circulation, their re-introduction would absolutely increase the whole mass of currency in the world; that is all. The future depreciation or appreciation would depend on the increase or diminution of the joint production of silver and gold mines; just as it does now in the gold-using countries and silver-using countries on the increase or diminution of the production of gold and silver respectively.

4640. A question that Sir John Lubbock put to Mr. Grenfell on Friday was this: Supposing England and India both became bi-metallic, you would not increase the volume of the currency, you would have the same quantity of gold in England, and the same quantity of silver in India. And yet you expect to raise prices in England slightly. Would this rise of price happen, and if so, how?—I think that would probably be the case, that is all I say, but as to not increasing the volume of the currency, I should agree to that, if bi-metallic India and England were excluded from commerce with the rest of the world. Obviously whatever addition was made to the volume of currency in any country would soon be spread equally over all.

4641. Sir John Lubbock asked the question in what way it would happen, and I think your late answer expressed an opinion that the tendency would be to raise the value of the Indian silver and depress the value of the English gold?—To level the value of the whole volume of currency, gold and silver, everywhere. It is probable that it would be slightly depressed.

4642. As regards freedom of contract to pay in gold, you do not propose that the bi-metallic law shall prohibit contracts to pay in gold?—Certainly not.

4643. Have you any doubt that in the absence of such prohibition, contracts to pay in gold would be legal?—I have none.

4644. Even supposing there was no legal remedy, the custom of traders might give force to such contracts, might it not?—Yes, and I presume that even if a court of law would grant no damages yet a court of law would probably compel specific performance.

4645. But your argument is that under a bi-metallic system there would be no motive for making such contracts?—Certainly.

4646. Have you considered whether if, while subject to a bi-metallic law, a great commercial community voluntarily adopted a system of contracting to pay in gold, it would affect the market price and place an *agio* on gold?—If you mean that the community should secede from the bi-metallic agreement, I have shown how great would be the difficulty of doing it, and how little the inducement. But if you mean that remaining in the bi-metallic union, English traders might get into the habit of making two prices, a higher for gold, and a lower for silver, or *vice versa*, that is if England perversely desired to have more than she really needed of either metal, she would have to pay for it. But I do not believe in the perversity, and I do believe that under a bi-metallic law each nation would practically use that which was most convenient for its needs. It is no doubt possible that a great mono-metallic country such as China might create a great demand for silver for the making of railways. There might then be an *agio* on silver, by which those who parted with their silver would profit.

4647. Do you know the case of California, do you know what happened there?—I have heard that this was really the state of things. A colleague of mine was in New York in the days of greenbacks, and he had to send a telegram to England. It was necessary to pay the telegram in gold. He went to the telegraph office, and the tape was continually running, showing the course of exchange from minute to minute. The clerk looked, and on that he paid; but in his inn he paid five dollars a day, in greenbacks, for his maintenance. He then went to California, and there he heard, as you said, that the money of the country was gold, so he inquired at his inn what was the price of his maintenance, and he was told $3\frac{1}{2}$ dollars a day. When he came to pay it he found it was greenbacks just the same, five dollars in greenbacks, though the price was $\$3\frac{1}{2}$ in gold. There was no gold to be had. It was only that they chose to keep up the nomenclature, not that they used the actual coin.

4648. Is it not the case that California refused to adopt greenbacks when they were made legal tender by a law of Congress, and insisted on carrying on all dealings in gold? Did not the State pass a law validating contracts to pay in gold, and was not this law upheld by the Supreme Court of the United States? Can you say whether all dealings in California are in gold and not in notes?—I believe it was legal to pay in gold, and make contracts in gold, but practically people made them in gold and paid them in paper.

4649. Your object is to restore silver to its former position in relation to gold?—Certainly not, in the sense of raising the gold price of silver, though that would be a result. My object is to ensure that silver shall take its share in the money work of the world, as was recommended by Mr. Goschen, Sir Thomas Secombe, and myself in our report on the Paris Conference of 1878; and if that is advisable it seems that the only way of assuring it is by a common declaration of the monetary relation between the two metals.

4650. But in doing that you propose to adopt a $15\frac{1}{2}$ ratio?—That is not part of the principle. It is what I think if I were arguing the question at an international conference I should argue was best.

4651. You believe that is the only practical way of doing it?—I do not say it is the only practical way. The Americans are willing to give up their 16, the French and German hold to their $15\frac{1}{2}$; and the adoption of the latter would seem to me, till better is shown me, to be the most practicable way of bringing it about.

4652. (*Mr. Barbour.*) If the nations agreed to a different ratio from $15\frac{1}{2}$ to 1, would you accept it?—Certainly, because I want the principle, which is far more important than the details.

4653. You would much rather have any ratio than none?—Certainly.

4654. (*The Chairman.*) Do you think there would be practical inconvenience, if the existing ratio were

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20 to 1, in fixing that as the ratio, if all agreed?—Not to us; no, not at all, excepting, as I have said before, that, judging from what one has seen of the very large production in the course of this century of the two metals, it would not be the true proportion of the two metals, the one to the other; but I think that would be of much less consequence, for this reason, that no one knows what the true proportion is, nor ever can learn.

4655. (*Mr. Barbour.*) Would there be this difficulty about the ratio of 20 or 21 to 1, that a great deal of coined silver is now over-valued, and if it came to be re-coined at the new ratio there would be considerable contraction of the currency?—Of course there would be that, that is to say that in Germany and France there would be a considerable contraction, and in America not quite so much.

4656. (*Mr. Fremantle.*) But in Germany and France they would not be coined at the new ratio, would they?—They would either be coined at the new ratio, or the value of the coin would be altered, because we are assuming that we have all agreed on a ratio of 20 to 1. That is the reason why I think 15½ to 1 would be so much more easy to carry out.

4657-8. (*Mr. Courtney.*) If they resumed at 20 to 1 in France and Germany, the 20 to 1 might be established by increasing in that proportion the weight of the five-franc piece?—It can be done by increasing the size of the five-franc piece, or decreasing the size of the napoleon.

4659. Whichever has to be done, it does not matter, the whole point of the observation to which I am working is this, that there need not be a contraction of the currency?—The contraction need not result from having greater weight in the silver coins. You may get the new system established by diminishing the weight of one coin or increasing another. If you increase the ratio to 20 to 1, you unquestionably contract the mass of measure of value throughout the world. You can alter the particular coinage of this and that country, but if out of the mass of silver 20 pieces are to be equal to one piece of gold, there certainly will be less equivalents to one piece of gold than if you had 15½ equal to one piece. The operation of the measure would be as follows:—For all internal purposes, in France, the possessor of 20 francs in silver is in as good a position now as the holder of 20 francs in gold. If the ratio were altered to 20 to 1, it would be a recognition within France of the depreciation of silver (as measured in gold) which has taken place outside it, and the holders of silver, and the country through them, would be so much the poorer. The measure of the loss would be the difference between the ratios of 15½ to 1 and 20 to 1 on the amount of silver held as currency in the country—say nearly one fourth. The change in the ratio may be carried into effect by dealing with the silver or the gold. If silver coins were dealt with it would need 20 ounces of silver to make pieces which are now made out of 15½ ounces. This would cause a contraction of the currency until the extra requirements were filled up from outside. If, on the other hand, gold pieces were dealt with, and so many grains were taken from the 20-franc piece, the result, as regards the holders of silver, would be really the same as if silver coins had been dealt with, though the nominal amount of the currency would be increased, for the holder of 20 silver francs would only obtain for them a smaller piece of gold than he would have obtained before the change; which new gold piece, though nominally representing 20 francs, would only purchase as much in commodities as 15½ francs did formerly. As regards prices, it is manifest that France by either operation (*i.e.* whether the silver or gold were dealt with) would be poorer by the amount of that extra legal value now given to its silver currency which would be swept away, and the currency to this extent would be contracted. If the operation could be confined to France, prices would, other circumstances being absent, fall to this extent in that country. So soon, however as the void was created, it would be

filled up by importations of silver into France, and prices would only be affected there as in other countries by the withdrawal of so much silver from the currency of the world. This would, of course, be exceedingly small. But within France itself the effect on nominal prices would be very different, according to the mode by which the change of ratio was carried out. Prices are now virtually measured by gold, though they are stated in francs, which are both gold and silver. If the silver pieces were enlarged, so as to bring up the silver in them to the ratio of 20 to 1, prices would not change, except to the extent of the temporary contraction above referred to. The new franc would accurately represent the gold price. But if the gold piece were reduced, prices measured still by the gold franc would rise* to the extent of the debasement of the gold coin; that is nearly a fourth. In other words, it would take 24½ silver francs, or a new gold piece of 20 francs, and 4½ francs in addition to it, to purchase as much as can now be bought for 20 silver or 20 gold francs. The debasement of the gold piece, it need scarcely be said, would greatly affect all contracts.

4660. (*Sir T. Farrer.*) Well, what you propose would create a greater demand for silver, no doubt?—Silver, no doubt, would be freely offered for coinage.

4661. You do not think that silver will necessarily be used in this country to a much greater extent than before?—No, I do not think that silver would be much, if at all, more used in the internal commerce of this country, not a single piece beyond what might be required by the public.

4662. (*The Chairman.*) Why should it create a greater demand for coinage if your hypothesis is, as I rather understood it to be, that it would not alter the habits of the people as to the particular metal which they used?—I mean this, that it would not alter the habits of the people in the particular countries as to the metal they had used. In Germany, more silver thalers, would, it is said, be welcome; and the fact of the Mint being open would ensure their being coined. It would be in the same case with gold here; one does not say there would be a demand for more gold, but when it comes in, it comes to the Mint, that is to say to the Bank, and forms part of the reserve of the Bank. The Mint is open to the gold, and therefore it becomes money at once, and that, which is not now the case with silver would be so in the case supposed, not of necessity for circulation in this country, but as being useful for export, guaranteed, at least as to fineness, by the stamp of the Mint.

4663. (*Sir T. Farrer.*) Silver is not and cannot be as easily used as gold as a remittance to pay the balance of international trade?—No, not as things are now.

4664. Silver under a bi-metallic system would be equally valuable with gold, consequently you would for that purpose create a great demand for silver?—For silver, but not necessarily for coinage, though its coinage might add to its convenience.

4665. (*The Chairman.*) When you say that there would be a greater demand for coinage, what you mean really is for purposes other than coinage?—Silver would generally have more purchasing power; I do not see therefore that it would be more sought for purposes other than the serving as money.

4666. (*Mr. Fremantle.*) What do you think is the reason that the thalers in Germany remain in the banks and do not go into general circulation?—I do not know that that is the case. I suppose the bank keeps its reserve for its own convenience in gold and silver. Nobody has yet been able to ascertain how much it has got of either of them. In France, one knows it exactly, but in Germany one does not know. All my knowledge is got from a friend of mine in Germany, a manufacturer there, who says, "I am always endeavoring to get rid of my silver."

* This rise would be temporarily counteracted to a small extent, owing to the virtual contraction of the currency resulting from the sweeping away of the present over-estimate of the silver coin.

"vouring to get myself a good store of thalers, because the people like them."

4667. What is to prevent their coming into circulation now?—I think they are in circulation, just as the gold in the Bank of England is, but the Bank must keep its reserve. It has got a reservoir of silver, and out of that reservoir people supply themselves.

4668. In what way would a bi-metallic arrangement change that condition of things?—Only that the Mint would be open to the coinage of silver; therefore when silver was made a remittance to Germany, silver would go to the Bank or to the Mint, just as when gold is remitted gold goes to the Bank or to the Mint.

4669. (*Sir T. Farrer.*) You say that silver would probably not be more used in currency in this country, or very little more; but whether it is so used or not, the effect of your proposals will be to increase the quantity of the precious metals used as standards, whether gold or silver?—Yes, I should say it would, certainly. My point has been, as I have said before, that less fluctuation in supply would be the thing, but there would be an increase, if I said right in my former answer to Mr. Birch, there would be some increase, but no one can absolutely say how much or how little that increase would be.

4670. If so, when, and how do you suppose that this increase will appear?—In the general though moderate increase of the measure of value all over the world as compared with the mass of commodities measured.

4671. Will this addition to the currency appear in the amount of cash used by people in their ordinary transactions, including, of course, notes issued against the metal deposited in the Issue Department?—I do not know that I can say how it would. It is through more spending power; that is the way it gets increased.

4672. Yes, but in order to operate it must be somewhere; where will it be?—All over, I think, everywhere, sooner or later.

4673. Do you think it will be in the increased amount of cash reserve in the banking department of the Bank of England?—The reserve of the Bank of England is merely a reservoir from which there is a continual flow. Various causes contribute to raise or lower the level of what remains in it. It might be low though a large import of bullion had been lately received.

4674. What I wanted to get at was in what way it would operate. I am now speaking of what you consider a subordinate object, but I want to find out in what way this increase would operate to restore prices to their former level, from which, as is assumed, they have been displaced by the depreciation of silver?—Only in the way that I have already said, by the general increase of the measure of value in comparison with the things measured; on the principle stated by Hume.

4675. Can you explain what is the exact connexion between the supply of the standard metals and prices? How would an increased or a diminished supply operate?—I will suppose a great discovery of gold in Australia. The finders of the gold are so much the richer, have so much the more to spend, and spend it there and elsewhere, overbidding their neighbours, and enhancing the price of the commodities which they desire. The receivers of the higher prices profit accordingly, and are themselves able to spend more at home and abroad; and the influence of the increased production of the measure is felt in ever widening but more faintly marked circles over the whole range of commodities measured. The holder of the gold outruns his neighbours in the chase after commodities, bidding higher prices for them, or in other words offering his gold at lower prices; just as had the increased production been in wheat or any other commodity, the holder in search of a customer would offer it at lower prices. But the production of the additional quantity of wheat cheapens wheat, cheapens it directly as compared with gold alone, and indirectly

as compared with all other commodities; for gold in all gold-using countries is the measure of those other commodities. So then the price of wheat is lower—not necessarily than it was before—but than it would have been had the additional quantity not been produced. The production of the additional quantity of gold, in like manner, cheapens gold, cheapens it as measured in commodities, so that the gold prices of all of them are, not necessarily higher than they were before, but higher than they would have been had the additional quantity of gold not been produced. The wheat is but a passing addition to the wealth of the world; but each ounce of gold, whether it is to be had for the picking up, or costs 4*l.* to produce, goes to swell permanently (barring wear and tear) the mass of the measure of value in the world and tends accordingly to the rise of prices. The converse of this is, of course, also true. Suppose a million sovereigns shipped from Australia to England and lost on the voyage. The spending power of those who lose it, and of those with whom they would have spent it, is in an analogous manner diminished, and the mass of the measure of value is permanently diminished, causing, sooner or later, a general fall in prices.

4676. (*The Chairman.*) If you remonetize silver, do you mean that it would have the same effect as if you discovered so much additional gold?—*Pro tanto*; that is to say, the bi-metallic system having been adopted, and the whole commercial world using both gold and silver, the discovery or the reproduction of silver that has been laid by, and, as one may say, put back into the mines, would be the same as the discovery of gold, in the proportion of the fixed ratio. If silver (or gold) be absolutely laid by, withdrawn from any influence upon the price of commodities, it is the same as putting it in the mines.

4677. But if you do not change your ratio, and take your present ratio of silver to gold, that silver is at the present moment exchangeable with gold at the rate of 20 ounces of silver to 1?—There would be no addition if there were no change of ratio. My last answer was made on the supposition that there was to be a change of ratio.

4678. (*Sir T. Farrer.*) I wanted, if I could, to get at the exact point where the precious metal is exchanged for commodities. I want to know exactly where it operates. The gold is somewhere. It is either in the hands of the public as circulating medium, or it is in the bank reserves. I want to know, would this addition operate upon one, or upon both, or upon which of those?—It would operate in turn upon all of them. Of course the production of more silver or more gold, the putting of a new store of money, in short, into the pockets of any individual, would tend to bring more gold into that reservoir of which we have spoken, the Bank of England. From that reservoir it would flow out; it would be a reservoir from which there are discharging pipes all over the country.

4679. Then if it operates upon the circulating medium through the country would not you expect that it would operate on retail prices, because it is in retail transactions that gold and silver are used?—Certainly, it is in those transactions that the metals pass from hand to hand; but the effect, speaking generally, is that retail prices do not rise at the same time, at least to the same extent, as wholesale prices do.

4680. Then my next question is, are gold and silver used in wholesale dealings?—Very little indeed, as passing from hand to hand.

4681. But what we find is this, that gold is used in retail transactions and not in wholesale, and yet you say retail prices do not fall or rise with the diminished or increased supply of gold while wholesale prices do. Can you explain that?—Wholesale prices will rise. That means to say, whether gold passes or not, that if, for example, I have received a commodity for sale, I am able to sell it at a higher rate, for a greater quantity of gold. I sell it. I touch

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no gold, but instead of receiving 5,000*l.*, I receive 6,000*l.* for my commodity. That belongs to me. It is transferred to me in the books of my banker. It is a mere transfer, but I am the richer. If we both bank with the Bank of England, it is a mere transfer.

4682. But we have been talking of the greater or less quantity of this physical material gold, and this physical material gold does not appear in those transactions at all. I want to know where it does appear to influence the transaction?—It appears in this, that by that transfer, gold in the vaults of the bank which was the buyers' becomes mine. Your point seems to be that retail prices, where sovereigns are actually passed from hand to hand, ought to rise when more sovereigns have been produced which should so pass. My point is that the passing of the gold itself from hand to hand is of no moment. Gold is the basis, and has been broadened, and a larger superstructure can be raised on it. I gain spending power, and thus prices rise. I, who have got this money at my credit, am able to give a higher price for a horse than I otherwise would, or for an estate; and the seller of the horse or the estate is in his turn enriched and would enrich others, the effect diminishing with each step as time goes on.

4683. You have got an order by means of which you can draw upon your banker; and for which he is obliged to give you sovereigns if you want them; but you never do want them?—Let us put it in a more concrete form. Let us suppose, as it was in 1853, that I received a consignment of a large quantity of gold. We will suppose also that the consignment, instead of belonging to my friend in Australia, belonged to myself. I had made a speculation in the gold and I had written out "any amount of ounces that you can buy at 3*l.* an ounce send over to me;" it is quite clear that I should have made 17*s.* 10½*d.* an ounce for my gold; I should be the richer. Two things would happen, in the first place that I am made richer, able to give a higher price for an estate, or a horse, or a breakfast, or anything, and besides that, the measure of value in the world is increased as compared with what it was before.

4684. (*The Chairman.*) Your first proposition I completely follow. Of course there is more gold which measures value, but the question is, whether such an increase as that added to the quantity of gold produces an appreciable effect upon the total of prices in transactions, which transcend enormously the quantity of gold that exists?—I think it would be impossible for us here to go into that whole argument. I should not feel myself competent to do so, in the time at our disposal. I give my authority; I say that is Hume's statement, which has always been accepted by economists, namely, that the mass of the measure of value, as compared with the mass of commodities, is that which in the long run and as a whole is price; that is, not only regulates price, but is price.

4685. (*Mr. Barbour.*) Do you think that the value or purchasing power of gold depends on the demand and supply, as with the value and purchasing power of other things?—Yes, surely it does. The way I put it is, that the gold is cheaper. I have to offer my gold, when I get a quantity of it, at cheaper rates, just as if I had wheat, an inordinate production of wheat. I am forced to offer that at cheaper rates. That is how it happens.

4686. (*Mr. Courtney.*) There are two theories which are a little independent of one another, and have to be connected by some element of time. First of all there is this theory that prices vary directly as the quantity of the money in circulation?—Yes.

4687. So that if you have got a quantity of money in circulation, *a*, to which there is an addition made, *b*, then the new price is to the old price *a* plus *b* to *a*?—Yes.

4688. And if *b* is small compared with *a*, there is very little change?—That is precisely it.

4689. But the immediate effect of the addition to your stock of a certain amount of gold might very greatly alter the range of prices in certain commodities.

There would ultimately be a new level, but there might be an immediate effect differing widely from that level?—I quite agree that the alteration of price in certain commodities would be very large at first, that is, at the place and time of any new discovery of the precious metals; but a level would be reached in time.

4690. (*The Chairman.*) Would not the extent to which prices generally were affected by an addition to the stock of the precious metals which form the standard depend not merely upon the per-centage which the addition bore to the total amount of the stock, but upon the relation which the number of transactions, measured by the money, bore to the amount of the stock?—Certainly, it might not be simply the per-centage; but I am not sure that the number of transactions is of much importance. It is the number of commodities which affects the matter. If commodities increased *pari passu* with money, there might be no change in price. I think Mr. Courtney's way of putting it is exact, but it of course requires the addition of the words *ceteris paribus*. There are many things which would alter that proportion, and that you have now mentioned is one of them, that every banking expedient makes a new discovery, perhaps, more important. I mean that if you discovered 100,000,000*l.* of gold now, that would have a greater effect upon the stock, the more the banking expedients had made the use of gold, in general transactions, not necessary. This point can be better investigated if we cast aside the idea of banking expedients, and imagine a community transacting all its business by delivery of coin in exchange for goods or service. Then it is manifest that though there may be a multitude of transactions (only limited by the physical possibility of effecting the transfers in the 24 hours) where the same piece or pieces should pass through many hands, and convey the same goods, or others of the existing stock of goods; but it is manifest that simultaneous transactions must, at any given moment, be limited by the number of the population, the number of pieces of money, and the number of commodities or acts of service. *E.g.*, if there were 1,000 men, having 1,000 pieces of money, and 1,000 exchangeable commodities, it is clear that 1,001 transactions could not take place at the same moment. Add 10 per cent. to the money, the spending power would be increased, and the ultimate result would be that the commodities measured by the 1,100 pieces would, taken as a mass, be higher in price. Let the money remain constant, and let the commodities be increased, the contrary result would of course take place, and prices would fall. If population increased to 1,100, while commodities and money remained constant, no change of price would ensue, but transactions would multiply. But increase of population really involves increase of commodities, and we may therefore treat commodities and population as one. It is clear therefore that increase of money or scarceness of commodities must raise prices, and scarceness of money or multiplication of commodities lower them. We know how fiduciary notes economise gold, how cheques economise notes, and how the clearing-house cancels cheques. Take away these expedients, and not all the gold in the world would serve for the internal transactions of Great Britain alone without great inconvenience to commerce and the daily transactions of life. But not on this account is the effect of the changes in the relative amount of gold and commodities diminished; on the contrary, it is increased. If the gold in England were 800,000,000*l.* instead of 100,000,000*l.*, the addition or subtraction of 50,000,000*l.*, or a corresponding subtraction or multiplication of commodities, would alter the proportion by $\frac{1}{16}$. But if the total were 100,000,000*l.*, such a sum subtracted or diverted from it would alter it by one half. The gold money in the world is computed at upwards of 800,000,000*l.* One quarter of that sum has been taken away from its former office of measuring the goods of the gold-using nations, and set to measure the goods of Germans. In other words, the mass of commodities measurable

by gold has been increased by those used by Germany, and prices, as shown above, could not but fall.

4691. I am not quite sure that I understand why, on the hypothesis you are putting, prices should have gone down of late years, because though there have not been such large additions to the currency, there have been additions to the gold currency?—It is because of the subtraction that has taken place; that is to say, that the Germans, and the United States, and the Italians, have set the gold to do other work, or rather to do work that it had not had to do. It is the same sort of work, but more work than it had to do before.

4692. You put it, that it is by excluding the silver that they previously used?—They excluded silver, and took gold.

4693. Taking gold would not matter, because it would not matter where it was. You are not speaking of the amount of precious metal in any particular country, but you are looking at the whole world, are you not?—Yes, certainly; but for the reason you have just stated, the taking of gold is important. The more nations are using gold, and the more gold is used from hand to hand, so much the more commodities has the gold to measure. What you have just now advanced would be perfectly right if the excluded silver filled the place left vacant by the gold that had been taken; that is to say, if gold and silver were joined together, and were working the whole exchange business of the world; but gold has to work the exchange business of the gold-using countries, and the more countries you put into that category, the more the gold has to do in the way of measuring;

the more commodities the mass of gold has to measure. It is not a case of destruction of precious metals, such as I spoke of in a late answer, but of diversion to new tasks. Mr. Mill in describing increased production of the precious metals, speaks of it thus:—"The money which thus overflowed would spread itself to an equal depth over all commercial countries." To follow his metaphor, I may say that there is always a certain water-level of currency over those nations more or less suited, or with time suiting itself, to the wants of their trade. It was in this case gold, and spread over the gold-using nations. If between them and their silver-using neighbours the sluice is drawn up, and the gold allowed to spread itself over them also, the increased area of the whole gold-using region must necessarily cause the attenuation of that which overspreads it, and which therefore must stand at a lower level. But that level is the measure of the purchasing power spread over the gold-using countries, and a lower level, therefore, necessarily means low prices. The adverse effect on prices seems to me to be conclusively shown; and even the proved presence of other circumstances, some of which, such as banking economies, should raise prices, some of which, such as increased production and increased facilities of transmission of commodities, should contribute to lower them, in no way affects the demonstration. That which I have asserted is, and must be, a necessary factor in the lowering of price. The only problem is to what precise extent it has been assisted by the last, and to what precise extent it has been counteracted by the first, and that is a problem which no man can satisfactorily solve.

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Witness withdrew.

Adjourned till Friday.

Twentieth Day.

Friday, 13th May 1887.

PRESENT :

THE RIGHT HON. LORD HERSHELL, the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.
MR. J. W. BIRCH.
MR. H. CHAPLIN, M.P.
MR. J. CHAMBERLAIN, M.P.
MR. L. COURTNEY, M.P.

SIR T. H. FARRER, BART.
MR. C. FREMANTLE, C.B.
MR. W. H. HOULDSWORTH, M.P.
SIR JOHN LUBBOCK, BART., M.P., and

MR. GEO. H. MURRAY, *Secretary*.

MR. SAMUEL SMITH, M.P., called and examined.

4694. (*The Chairman*.) You have given considerable attention, I believe, to the subject of the currency?—Certainly, for many years.

4695. And to the variations in the relation of gold and silver, to one another and to commodities?—Quite so; I have taken up this subject from the very outset of the movement about 10 or 11 years ago, and followed everything or nearly everything that has appeared on the subject.

4696. Your view is that there has been a material appreciation of the gold standard of late years?—Certainly.

4697. Do you mean by that an appreciation of the gold standard in relation to commodities by reason of the appreciation of gold as distinguished from the depreciation of the commodities?—I think so; I think that the purchasing power of gold has increased very much in all gold-using countries.

4698. In what way do you think that is established?

—Well it would be a long argument to give all one's reasons for thinking so, but I would state what is the result of close observation of the causes that determine prices gained by 30 years' commercial experience. I have been engaged in a trade on a large scale in which one is called upon to observe very closely all that affects price. I may mention for the information of the Commission that I have been engaged in the cotton trade, much of the time on a large scale, especially in the Liverpool market, but also in India and in America, and it has been my chief business to watch everything that tells upon price with the greatest closeness, in fact the success of our business wholly depended upon accurate views regarding all influences affecting price, and it has been made obvious to me for several years past, that the heavy and long continued decline of prices was not owing merely to the ordinary causes, which cause fluctuations from year to year, but to some deeper and subtler

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cause which I have no doubt whatever is a decided appreciation of the gold standard. There are ample reasons for that appreciation.

4699. Can you tell us why you attribute it to an appreciation of the gold standard rather than to an increase in the supply of commodities, or a diminished demand?—I will give you one reason which to me appears a very cogent one. We had a steady increase in the prices of all commodities from the discovery of the Australian and Californian mines about 1850 which went on more or less up to 1873. The general rise of prices was about 40 per cent. during that period. We had during that period a rapid increase of production. We had a continued increase of appliances for cheapening production. We had keen competition, a reduction of charges. We had the rise of our great railway system. We had the introduction of steam and telegraphs; in fact all those agencies came into play which ought to have produced a fall of prices according to ordinary calculations, and in place of that we had a steady rise of prices amounting to about 40 per cent.

4700. But is it a fact that there was a steady rise of prices? Were there not many cases in which the prices were lower than they were in years before that?—I would not say so. There were of course credit cycles which we are all familiar with, years in which there was more inflation, in which there was a commercial crisis and depression. We had, for instance, the commercial crises of 1857 and 1866, each of which produced a temporary fall of prices, but the average kept rising, the steady average of prices kept rising year by year as you can see by referring to the index numbers of *The Economist*.

4701. Then do you depend for that statement upon the prices as shown in the index numbers of *The Economist*?—Not entirely upon *The Economist*, upon the index numbers of many of the leading economists. I have examined some of them and I have given in my own pamphlet one compounded from several index numbers by Professor Foxwell, which I imagine is as copious and complete as any that has been published, as it deals with a very large number of articles.

4702. But the results shown by using index numbers differ considerably do they not, according to the articles that you include or exclude?—Not very greatly. I have gone over several lists. They do not differ very materially.

4703. And the results are arrived at by setting falls in price against rises in price are they not?—The results are arrived at by giving the average price of these commodities in each year.

4704. You take a certain number of articles, the index numbers of those articles, and you find what was the total result in the year as regarded all these articles put together?—The usual principle upon which we arrive at prices is to take the average of a year for one article, we divide the quotations week by week, we add together the quotations for the whole year and divide by the number of weeks.

4705. But if you take it separately for each article you do not mean to say that in respect of each article there was a rise up to 1873 and a fall since?—No; what I would say is this; all commercial statistics depend upon averages. There are separate influences which affect each article undoubtedly, and you can only go by large averages in calculations of this kind. Some articles rise more, other articles rise less, but the general average rise of all commodities together was as I state about 40 per cent. between the year 1850 and the year 1873.

4706. Yes, but some fell as well as some rose did they not?—I should think very few fell, the great bulk rose, and some rose of course more than 40 per cent. to balance those that fell.

4707. And do you think that that rise during say the five years preceding 1873, arose from the currency. There had been no fresh discoveries of gold for a long time before that had there?—I should judge that the period immediately preceding 1873 was

in some degree a period of inflation as the period from 1866 to 1868 was one of depression.

4708. You would expect a period of inflation to be followed by a period of depression?—Yes.

4709. And the greater the inflation the longer the period of depression?—Usually.

4710. Was there not about the time you have named a great unwillingness to trust foreign States which previously had been trusted with large sums of money for railways and other industrial undertakings; and would not that tend to diminish the demand for many important articles of commerce?—Somewhat.

4711. You consider that the appreciation of gold standard is put by the best authorities at no less than 20 per cent.?—I think so.

4712. Appreciation since what date do you refer to?—Since 1873; I take that date as my starting point because that was the year in which the demonetization of silver first fairly came into view.

4713. But in the five years succeeding 1873, the prices were much about the same were they not, or rather higher than in the five years preceding 1873?—Taking *The Economist* numbers I find that in the five years preceding 1873, they were 122, 121, 122, 118, and 129, and then the five years succeeding 131, 126, 123, 124, and 115, therefore, higher every single year until you come to 1878?—I think the best test is the value of British exports. The value of British exports reached 255,000,000*l.* in the year 1873, and they fell steadily and almost continuously after that to 1879, in which year they were 191,000,000*l.*, and yet the quantities kept increasing all the time.

4714. May not those two things have had something to do with one another? If quantity increases beyond a certain point, is not that one of the very things that will bring down prices?—I allude to the question of quantity to show what a very great decrease in prices there must have been, because in 1873 the value of our exports was 255,000,000*l.* In 1879 it was about 191,000,000*l.*, and yet there was a considerable increase in quantity. The object of my argument is to show what a heavy fall there was in the price of many articles.

4715. But taking coal for example, was not there ample to account for a great decrease in the price of coal, without any reference to an appreciation of gold?—I have no doubt there were reasons for a fall of price apart from the appreciation of gold, but for a very much more moderate fall than has taken place. If I may be allowed to remark further in connexion with that, I would point out that we are all perfectly familiar with the principle of credit cycles in business, according to which there are two or three years of great activity and rising prices, and then a commercial crisis or a check at least of business, and two or three years of falling prices; the swing of the pendulum usually is about 20 per cent. from top to bottom—10 per cent. above the mean on the one side and 10 per cent. below the mean on the other. I have no doubt that we would have this downward swing of the pendulum from the prices ruling in 1873, probably a fall of 10 to 20 per cent. from the highest point. That I fully allowed for, but I think the long continued fall in prices is owing to the appreciation of the standard itself.

4716. How do you suppose that appreciation of the standard has acted?—The result of its action is this constant dwindling of prices.

4717. But how has that result been produced?—That is one of the most subtle problems probably in economics, and very difficult for any one to precisely explain. It is like asking why the influence of frost upon vegetation is so and so. We see and know that a cool temperature has a certain influence on vegetation, and a warm temperature has another influence. In the same way I should say that a steady increase in the supplies of money always has had in human history a tendency to raise prices, while on the other hand a steady falling off in the supply of money has had a steady and constant influence in the way of reducing prices. That has been proved, by human

history spread over many hundreds of years, conclusively.

4718. But would it not be much more likely to have an effect upon prices at a time when the course of commerce was to exchange commodities for some precious metal which was the standard, than at a time when the bulk of commercial transactions was carried on without any such payment of the precious metals?—I do not think I could answer that question.

4719. Of course you do not differ from the view that at the present time a vast proportion of the commercial transactions are carried on without the payment or exchange of any of the precious metals?—Certainly.

4720. And the more that is the case would not the effect of a diminished supply of the precious metal which was the standard be less felt?—I doubt that, because the precious metal is the basis upon which all credit is based. All notes, cheques, and so forth are in the last resort exchangeable into the precious metals.

4721. Yes; but what I want to get at if you could give me an idea of it is, how you suppose that a diminished supply of the gold or the currency has this very great effect in depressing prices?—I would say that in this particular crisis which has existed for about 12 years, one of the methods by which the fall of price has been brought about is the competition of countries having a silver currency. Those countries are able to produce cheaper now than countries having a gold currency, and wherever the products of countries having a silver currency come into competition with the products of countries having a gold currency, then the tendency is to force down prices in countries having a gold currency.

4722. That I perfectly understand; but is not that an entirely different question from the general question of the diminution of price by reason of the appreciation of gold?—I think it is in some degree, but you ask me to explain the methods by which a diminished supply of the precious metals forces down prices. I reply that it is one of the subtlest of all agencies, and it is doubtful whether any one could give a perfectly accurate account of the process, but in the present instance, this crisis which has existed for the last 12 years, I think you can put your finger upon one cause which undoubtedly tends to force down prices, and that is the competition of the produce of silver-using countries.

4723. That brings in of course the question of a change in the relative value of silver and gold?—Yes.

4724. Then you attribute the diminution of price in part to an appreciation of gold generally in relation to commodities, and in part to the effect of competition with silver-using countries, owing to the change in the relative value of gold and silver?—I must say the two things are mixed up together, because the appreciation of gold has been largely caused by the depreciation of silver; they are, in fact, one and the same thing to a very large extent.

4725. As between silver and gold they may be, but not as between gold and all commodities?—I think they do affect that as well, because had silver not been depreciated, had the old ratio of 15½ to 1 existed, we would have had to-day a higher scale of prices in all countries having a gold currency and a lower scale of prices in all countries having a silver currency.

4726. Yes; but that is from a different cause, is it not, from the appreciation of gold in relation to commodities owing to the scarcity of gold?—I should say as I said before that the two things are inextricably mixed together. Had we had no change in the bi-metallic system of Europe I still think there would have been a fall in prices, because the joint production of the metals is not sufficient now, scarcely sufficient for the wants of the world. We would have had a fall in prices, but we have had a much greater fall in countries having a gold currency, owing to the separation between gold and silver.

4727. Now you say that even the joint production of gold and silver is not sufficient? The production

is very considerable both of gold and silver still?—Yes.

4728. And much more than sufficient to replace tear and wear?—Yes; but there are constantly new uses and large new uses for the precious metals. For instance, in the last 12 years the new uses for gold have reached about 200,000,000*l.* sterling, that is to say, we have filled up countries that had a paper currency before with gold.

4729. That has been done and has added so much to the currency of the world, has it not?—I would rather say it has taken the reserves out of one class of countries in order to fill up the reserves of another class of countries.

4730. Yes, quite so; but when you are speaking of the appreciation of gold you are not speaking of one particular country, you are speaking of the whole commercial world, are you not?—Yes.

4731. And you must look therefore at the total which exists in all countries?—Yes; while in all countries having a gold currency the fall of prices since 1873 is enormous; in all countries having a silver currency there is a very slight fall indeed.

4732. Yes; but what I was directing my question to is this: You said that even if you took the joint production of gold and silver the difficulty would remain, although it would not be so great?—The difficulty would be much lessened.

4733. I want to understand why it exists at all; you say it arises from an insufficient supply of the precious metals, how does that affect people? I want to look at the thing practically; where does it come in to produce the mischievous effect which you suggest?—Let us take an extreme case. It is always by an extreme case that you can test a principle best. In the middle ages the mines almost ceased to yield altogether; the stock of the precious metals of the world ran down immensely from what they were in the time of Alexander and the times of the Roman Empire. Every one knows that there was a very large stock of the precious metals then, as shown, for instance, by the enormous captures that Alexander made in Asia. He captured some 20,000 talents of gold, as you will remember, at one time. Very well, the mines almost ceased to yield for several hundreds of years, and the stock of precious metals, in the view of all economists, ran down in the 14th century to an extremely small point, and along with that the prices of all commodities fell to an extraordinarily low figure. For instance, the selling price of a bullock in England was 2*l.*, the selling price of wheat was 10*s.* or 12*s.* a quarter, the price of wages, the wages of a man was about 3*d.* to 6*d.* a day, and everything measured by money in the same way fell to an extraordinarily low price. Then came the discovery of the South American mines, and for 200 years there was a constant steady rise of prices till the average was raised fourfold. The price of all commodities in the 17th century was about fourfold what they were in the 14th and 15th centuries, and the stock of money in the world was very much larger.

4734. At that time the practice of commerce was exchanging the commodity for the precious metal, was it not?—Even in those ages I should think that the greater part of commerce was carried on by bills; bills were used for purposes of exchange from the earliest times. Much the larger part of commerce I should think was carried on by bills and bank notes.

4735. Do you think in the same proportion in relation to the commerce then as now?—No, I should not think so.

4736. But what I rather wanted from you, if you could give it, was how under existing circumstances the want of this currency comes to be felt; there is enough existing for all practical purposes, is there not?—I will put it this way. There always will be enough for all practical purposes, because prices will always adjust themselves in proportion to the volume of the currency, that is to say, if you were to close up the mines for 100 years, at the end of that 100 years you could still say there was enough

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currency for all practical purposes, but prices would be then one quarter, or one half, of what they are to-day.

4737. Of course that is so; prices will fall in that way, but we will suppose there is a diminution of 10 per cent. in the production of gold, how should that bring down appreciably the prices of commodities which are dealt with during the year to the extent of 10, 20, 30, or 40 times the amount of the total currency in existence?—I think that the relation between the annual yield of the mines and prices is but slight, and hardly perceptible. You have to take it over a period of years before it tells, because the existing stock in the world is so large that the addition of one year's supply is very trifling, and therefore the changes in the yield from year to year, I would say have not a perceptible effect, but when spread over periods of years, long periods of years, then the effect is very perceptible. For instance, between the year 1809 and the year 1850 the effect was most perceptible; there was a prodigious fall of prices, and there was a very small yield from the mines. For several years the yield of gold was only about 4,000,000*l.* or 5,000,000*l.* a year in all the world. The yield of silver was almost extinct for several years owing to the closing of the Spanish mines, and there can be no doubt that that had much to do with the extraordinarily low prices ruling between the years 1830 and 1850. Then again the great rise of price from 1850 to 1870 was clearly connected with the immense addition to the currency of the world caused by the discovery of the gold mines of Australia and California. As to the broad effect, there is no doubt; as to the method in which that effect was brought about, I think it is very difficult indeed for any one to give the *rationale*.

4738. But, except the monetary change in 1873, there has been no particular change since, has there, affecting the precious metals?—Since 1873 there has been a great reduction in the amount of the precious metals available for money in Europe, a very large reduction indeed, and it has arisen from two causes; first of all, the mints of Europe have been virtually closed against silver since 1873 and 1874.

4739. I speak of since that time, say since 1874; there has been no other change since that time, has there?—No; but there has been a constant falling off in the supply of gold, and a very large new demand for gold, amounting, as I said before, to 200,000,000*l.* sterling. That new demand amounted to much more than the whole production of the mines, and was largely drawn out of the stocks of countries that already had a gold currency. It is generally believed, for instance, that the stock of gold held in England to-day is very considerably less than it was 12 or 14 years ago.

4740. I think you said that when you were looking at this question, you looked at all commercial countries together, so in that view it would not matter that the gold was in one rather than another, would it, if the same total currency existed?—I think it would very materially, because, take 1873; at that time the United States had an inconvertible paper currency. They had not resumed specie payments. There was no specie in America. It had all been expelled during the civil war. A higher scale of prices ruled in America, as usually happens in countries with an inconvertible currency. Then it was decided to resume specie payments, and the same effect happened in America as happened in England after 1816. We resumed specie payments. We had a period of very great depression and heavily falling prices. So they had in America. From 1873 to 1878 was a time of intense depression in America, prices of everything falling enormously. At the same time they purchased a great quantity of specie in Europe, and they were able to resume specie payments, and specie supplanted inconvertible paper currency. The tendency in America has been towards lower prices generally over the last few years, just the same as in England. The same causes which produced low gold prices in England produced low gold prices in America.

4741. But why should that be so if all countries

together still possess the gold. Although its transference has taken place from one country to another, why should that produce low prices everywhere?—Well, there is a much larger amount of work for gold to do. Gold is called upon just now to do the work of exchange over a far larger area of the world than was the case prior to 1873.

4742. You mean by substitution for the silver?—Yes, partly by the substitution of gold for silver, and partly by the substitution of gold for inconvertible paper wherever nations with inconvertible paper took a metallic currency. Of course they have to draw their supply of specie out of the stock existing in the world, and that tends to lower prices all over those countries in which gold is the circulation. Let me give an illustration. Russia just now, Austria, and some other States are countries with an inconvertible paper currency. Supposing those countries were to do what Italy and America have done within the last few years, and what some other countries are trying to do; supposing they were to replace their inconvertible paper by a gold currency you would again have a very heavy draft upon the existing stocks of gold, the effect of which would be to force down prices further in all gold-using countries.

4743. You put it at 20 per cent. Is it the combined effect of all the causes to which you have alluded, or the appreciation of gold in relation to commodities alone that you put at 20 per cent.?—Of course it is only a guess. No one can give anything but a guess. I have formed my own opinion after reading the views of the best economists on the subject, and indeed most of the literature on this subject, and in a very rough sort of manner I would put the appreciation of gold since 1873 at 20 per cent. on the same principle that Jevons and other writers put the depreciation of gold at 15 per cent. between 1850 and 1870. I think they were too low. My opinion is that the depreciation was more than 15 per cent., but still I adopt the same basis on which they acted, and I should say that 20 per cent. is a fair estimate of the appreciation since 1873, and the other 20 per cent. fall in prices I would attribute to other causes such as the natural reaction from a period of inflation, and the economising expedients which are always tending to reduce certain articles.

4744. (*Mr. Houldsworth.*) How much do you put to that?—I would be inclined to divide the fall of 40 per cent. between the appreciation of gold which I put at 20 per cent., and the economising process in the production of commodities and other causes which I would put at the other 20 per cent., but it is only an estimate of the roughest kind; no one can give anything else on such a subject.

4745. (*The Chairman.*) You attribute the rise of prices from 1850 to 1873 to the discoveries of gold coupled with the free use of silver?—Yes.

4746. But there had been no great discovery of gold for some time before 1873, had there? There had been what we may call a normal annual supply?—The supply of gold kept steady and large to that period, not quite so large as it was a few years before, but the supply of silver was increasing, and the aggregate supply kept about the same all that time. I think it averaged about 40,000,000*l.* of both metals, or nearly so.

4747. You say the annual supply since 1873 has been insufficient for the purposes of currency?—I would rather put it this way. I think it has been insufficient to maintain the standard of prices that existed in 1873. I would not say insufficient for the purposes of currency, because, as I observed already, no matter how much you may reduce the supply of the precious metals they will always appear to be sufficient because the fall of prices will occur contemporaneously, and the two things will balance one another.

4748. Do you think that the consumption of gold for purposes other than currency has increased?—I think very much. I have been carefully inquiring into the opinion of the best authorities, and I am

surprised to find that a man like Soetbeer, who is looked upon as the best authority on the subject, puts the consumption of gold in the arts as high as 12½ millions annually, out of a total supply of 19 millions. Laveleye, who has also devoted great attention to the subject, puts it at about the same.

4749. Is that higher than it used to be?—I think much higher.

4750. How do you account for that if everybody is so badly off?—Look at the gold watches and gold chains used all over Christendom compared with what used to be the case.

4751. One would rather have expected a reduction in the demand for the arts in times when there is so little money to spend?—I think as matter of fact, however, much more gold is used. I am told, it is an amusing statement to make, but I am told that the amount of gold used in the United States for stopping teeth is half a million sterling every year.

4752. Then the amount remaining for the currency is of course so much reduced. And you calculate that of what remains for currency a portion goes to India?—The average export of gold to India or to India and China is about 4,000,000*l.* sterling annually and that is not used as money, it is melted into ornaments or hoarded.

4753. Then there is some consumption in the British Colonies?—A very considerable consumption.

4754. I believe you do not think that during recent years the economising expedients have been much developed?—I scarcely think there has been any change in the last 10 years or so. I think they have been carried about as far as it is possible to carry them in countries like England and the United States.

4755. I think it has been suggested that the system of cheques as one economising expedient has been a good deal developed in France of recent years?—Yes, in France because that was a backward country in the use of commercial credit.

4756. And in Germany has it been increased also?—I do not know enough of Germany to be able to say.

4757. In this country has it not to some extent been increased by an increase in the number of branch banks now to be found in small places where previously there were no such facilities?—I am not aware that that reduces the amount of specie required for trade to any extent, because these banks all must hold reserves. The best proof of the necessary requirement of a large amount of specie even in a country where every economising expedient has been developed is to be found in the United States of America, because as I observed already since the resumption of specie payments America has taken about 150,000,000*l.* sterling of gold and silver combined to supply its circulation.

4758. But do you know how that money is utilised in America?—I presume very much the same as it is in England, but less largely.

4759. Do you think that there is anything like that in circulation or in reserves of banks?—Well, a large portion always must lie in banks in reserve as security for their circulation, that is really being used. That is the method in which gold is largely used nowadays.

4760. But where do you get the figure from, because I think it is considerably higher than what we have had from any other source?—Well, I think Mr. Goschen amongst others stated it, and I have seen it repeatedly assumed as true. I have no doubt of the fact, that the United States have taken about 100,000,000*l.* of gold since it resumed specie payments, and the coinage of silver, I am speaking roughly, from memory, has been I think nearly 50,000,000*l.* sterling; that is 150,000,000*l.*

4761. (*Mr. Birch.*) You stated just now that on account of these numerous banks much greater reserves had to be kept than formerly?—I am inclined to think that wherever there is an extension of the banking system there would tend to be larger reserves.

4762. But then I think you also stated that you consider that there is 20,000,000*l.* less gold in the country than there was a short time ago?—Well, I have seen an estimate that there are 20,000,000 fewer sovereigns in England. I have seen several estimates to that extent as compared with what we had 10 or 15 years ago, but I think that was taken partly out of the pockets of the people as well as out of the reserves of the banks. The general belief is that there are fewer sovereigns in circulation.

4763. (*The Chairman.*) There do exist large accumulations of bullion do there not in some of the national banks?—Certainly.

4764. And interest has ruled very low of late years?—Yes.

4765. How do you account for that?—I would account for that by the great depression of trade. There is no surer index of the depression of trade than a very low rate of interest. I suppose during the last 12 years we have had the lowest rate of interest that has ever been known in England, taking the average.

4766. I am not quite sure what you mean by a great depression of trade, because I understood you to say that the trade that we have been doing, though not a valuable one, had been a bigger one?—The trade that we have been doing has been exceedingly unprofitable. During the last 12 years nearly every branch of it has been exceedingly unprofitable.

4767. Yes, but it has been very large in amount, in quantity?—The money value has been greatly reduced. The quantity of commodities produced annually increases with the increase of the population and machinery. It cannot be otherwise. That does not indicate a prosperous trade.

4768. But when you speak of the value having been very much reduced as regards a great many branches of trade, that might be perfectly true, and yet the profit may be the same as before, may it not?—I think the general profit made by the commercial community during the last 12 years has been very greatly less than it was in previous periods.

4769. That hardly answers the question I was putting to you, that the fact that there is a reduction in the value of the manufactured articles is not a test of the profit that is made on the manufacture, in as much as if you get your raw material 20 per cent. cheaper you can afford to manufacture 20 per cent. cheaper and make the same profit?—That is quite true. But the value of the exports from this country were 255,000,000*l.* in the year 1873 while last year they were only 212,000,000*l.*

4770. (*Mr. Chamberlain.*) There has no doubt been a fall in the money value of the exports from the highest period, but as far as my knowledge goes the returns of the banks and the turn over of business has been as great or greater than it was?—Well, I am not able to answer that question, but I should have thought that there was a shrinkage in value pretty much all along the line. I would put it this way, however, that prior to 1873 there was a very rapid constant increase, and that rapid constant increase came to an end and has been at an end for several years past.

4771. (*The Chairman.*) But a large part of the shrinkage in the value of exports would be accounted for, would it not, by the fact that raw material had very much diminished in value also?—No doubt.

4772. By depression of trade you mean the unprofitableness of trade, not the small extent of trade but its unprofitableness?—Well, the unprofitableness mainly, but when trade becomes very unprofitable it affects the quantity as well, because works are shut up or worked upon short time. There has undoubtedly been a great deal of short time during the last 10 years in most of the large trades of the country.

4773. That to some extent has arisen, has it not, from an increase in the number of places of manufacture and economy by means of machinery?—No doubt in part, but the singular fact is, as I observed before,

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that in countries having a silver currency that depression has not been felt; it is only in countries having a gold currency.

4774. But prices of manufactured goods are lower in countries having a silver currency, are they not?—A little lower, about 10 or 15 per cent.

4775. Because I thought one of the suggestions was that because they produced and sold at so low a price, they brought down prices here?—They were able to sell at a low gold price, but got back a good silver price.

4776. You mean prices as measured in silver?—Quite. They got back satisfactory prices to themselves measured in silver, silver being their sole standard, and they are able to sell at a very low gold price.

4777. (*Mr. Birch.*) Yes, but imported articles, the articles that they imported would have risen in value measured in silver, would they not?—Of course they buy them at a very low gold price.

4778. (*The Chairman.*) Then, in your view, high rates of interest with active trade are better than low rates of interest and a languid trade?—Most certainly.

4779. Do you think that the damage done by the monetary crises in 1857 and 1866 was small compared with the damage done by what you refer to as the long continued depression since 1873?—Certainly the damage done by those crises was very brief; it was just a temporary paralysis, but in a year or two afterwards the country was at full work again, and trade very profitable.

4780. A large volume of trade, though with a small margin of profit, may be a very advantageous thing, may it not, for a country generally?—I think it is best for the country generally that trade should be reasonably profitable. When it becomes very unprofitable it ultimately tends to decay, besides causing a great loss of capital to the country. I have no doubt the classes engaged in many of our large trades are very much poorer now than they were 13 years ago.

4781. You think the evils resulting from an appreciation of the monetary standard may be divided into two classes—those affecting ordinary trade, and those arising from fixed burdens payable in money?—Yes. Of course I attribute most importance to the latter of the two.

4782. Take first the first of those two causes. What have you to say in regard to that?—Well, with regard to ordinary trade, every man in business is familiar with the effect of a long continued fall in prices. It produces the extinction of the poorer class of traders—the struggling, rising class of traders—the small men with little capital, who cannot stand heavy losses. That was the state of English trade during much of the period covered by this inquiry. Prices were constantly declining—crumbling away; all calculations turned out illusory, till at last a feeling of something like despair crept over most of the trading centres of England.

4783. That is the result of falling prices whatever the cause of the fall?—Yes.

4784. That result of course would cease when prices had found their level, though it were a low level?—It would cease to operate upon a new class of people. The old class of people have been largely swept away.

4785. They would have borne their loss, but it would cease to operate as soon as prices found their level?—Yes; I think last year was the lowest point of the whole decline. This year there has been a slight recovery in some things.

4786. Now the working industrial classes if they had been employed at the old rate of wages and steadily employed would have gained by the low prices?—Yes; if they had been employed, which they have not been.

4787. In your opinion they have suffered from a fall of wages, I do not mean relatively suffered, but they have had to submit to a fall of wages?—Yes.

4788. Do you think to the extent to which they have benefited by the low prices?—I think the fall of

wages has not been so great as the fall in the price of commodities. That is matter of common knowledge, but there has been a great loss of time, a great loss of labour power, because in most trades work has been very slack and the poorer and weaker class of labourers have been turned off altogether as a rule.

4789. There has not been any very great increase of pauperism, has there?—The reason of that is that the system of out-door relief has been curtailed very greatly of late years. The tests are more stringent, and so pauperism is kept down apparently, but the amount of charitable means given for the relief of distress the last few years has been very great. I think much greater than it was before.

4790. (*Mr. Chamberlain.*) But if the volume of trade is as large as ever, is not the labour employed upon it as great as ever? Is there therefore any reason to believe that the amount of labour employed is less now than it was 12 or 20 years ago?—I think the labour of the country has not been so well employed over the last 12 years as it was the previous 12 years.

4791. That may mean that the increase of the trade has not kept pace with the increase of the population, but it does not mean an actual reduction, does it, it would only be a comparative reduction?—Yes, the volume of trade seems to me a somewhat ambiguous term. If you try to define it more exactly, I think you would perhaps come to somewhat different conclusions. The volume of trade measured by its money value has decreased, I think.

4792. Yes, I am only speaking not of the money value but of the quantity?—The quantity produced has increased in many trades owing to the improvement of machinery; that is to say, the same machinery will turn out 25 per cent. more in many trades than it would have done 12 years ago, but it does not employ more labour, meanwhile the population has increased and the number of the unemployed labouring class has increased. Let us take an illustration. Supposing you are the owner of a factory that employs 1,000 men and you turn out now 25 per cent. more than you did 10 years ago with the same 1,000 men, there is an apparent increase in the volume of trade, but your 1,000 men have growing families and you ought to be employing 1,500 men in order to take up the increased population, but you cannot do it.

4793. (*The Chairman.*) But if you have a continual increase of production by the improvement of machinery and other means, must not the effect of that be necessarily to reduce prices and to diminish the amount of labour employed?—Yes, as I observed before, I think there is a constant tendency in machine-made goods of all kinds to lower prices, because new inventions enable them to be made cheaper. But there is another set of causes which tends to raise prices in all old communities which goes a long way to counterbalance that. In all old communities the tendency is to a rise in price in most things in which labour enters very largely, such as building operations; food also. Many kinds of food usually grow dearer, so that, I think, if you take commodities as a whole and values as a whole, one can hardly say off hand that the natural tendency is for them to get cheaper from year to year. I doubt it.

4794. But in building operations, may you not overbuild? I should have thought that that was a case in which it was very easy to out-run the needs of the population?—Of course you can overdo anything; but I mean to say that, taking long periods of time, the tendency of prices should not be lower in the country in one period as compared with another.

4795. You think that the persons employed in industrial occupations suffer in the end, but are longer before they feel the suffering than those who are employing them?—Certainly; that is always the case, because when trade becomes bad employers go on hoping for some years, spending capital, improving their works, trying to cheapen their processes, always hoping a turn of the tide will come, and during that period the workmen do not suffer, especially in trades

where they have strong combinations. At last there comes a time when the employers can stand it no longer. Their capital is exhausted, works come to a stand-still, attempts are made to force down wages which are met by strikes; then comes the time when the operatives suffer.

4796. Your next point has relation to the burden of fixed contracts payable in gold; what have you to say with regard to that?—That has long seemed to me to be the most weighty consideration as bearing upon this question which is before this Commission. In an old country like England the amount of permanent engagements of all kinds is something enormous. I daresay this Commission may possibly have read an estimate which I have offered, which of course is a very rough estimate, for there are no figures available, but I have submitted it to several statisticians and actuaries and others with a view of getting further information, and no one has been able at least to point out any defects in it, and some have pointed out that probably some of the figures are much larger than I have put them. We have first a National Debt of 750,000,000*l.*, with interest and sinking fund amounting to 28,000,000*l.* per annum. I suppose we must call it 26,000,000*l.* now since the last budget. Then we have railway bonds and preference shares amounting to 500,000,000*l.*, with interest averaging, say 4 per cent., or 20,000,000*l.* a year. Local and municipal debts are estimated at about 160,000,000*l.*, say at 4 per cent., 6,400,000*l.* per annum. Then we have the vast amount of mortgages on land. I have tried to get information on that subject from the best authorities, and find it is impossible, but I think that 500,000,000*l.* is a very moderate estimate; indeed, I would not be at all surprised if they amount to much more. Let us take interest at 4 per cent., and that will be a fixed burden of 20,000,000*l.* a year. Then we have the mortgages upon all kinds of property other than land, such as house property, factories, ships, and on industrial plant of all sorts. I have put that down at 500,000,000*l.*, but I am inclined to think that it is very much more from what I have since learned; but call it even 500,000,000*l.* at 4 per cent., that is 20,000,000*l.* a year. Then we have further to take into account the great number of long leases in our country. We have a great portion of all our towns built upon building leases of 99 years, with fixed rates of payment. I have not been able to get any estimate of the amount, but I suspect it is at least 30,000,000*l.* a year that is drawn from these long leases. Then there are the royalties on mines, which have been felt as a heavy tax of late years owing to the very low price of minerals. These royalties I have put at 8,000,000*l.*, but I am told by those who are investigating the subject that probably the amount is nearer 12,000,000*l.* In addition to all these there is a very large amount of fixed annuities, pensions, life interests, &c., chargeable on most estates or payable by the Government. It is well-known that many of these estates have of late years hardly afforded any surplus to the nominal owners after paying interest on mortgages, annuities, and other fixed charges. I roughly assess the total of annuities, pensions, and other fixed charges, not included in the other items I have dealt with, at 18,000,000*l.* a year, and this will make the total fixed charges payable out of the industry of the country about 150,000,000*l.* a year, but I think it is not impossible that the amount may turn out to be 200,000,000*l.* if we had the means of making an exact computation.

4797. Some of them at all events would have been borrowed at a lower rate of interest because of these depressed times when the interest was low, would they not? When you can borrow at $3\frac{1}{2}$ per cent. owing to depressed trade and the appreciation of gold, you may be as well off as if you had borrowed at 4 per cent., or rather had to pay 4 per cent. with brisk trade, and gold not appreciated?—Well, that is an objection which I have often heard made. The reply I will give to it is this. Suppose I am the owner of a factory for which I paid 100,000*l.* during a period

when trade is prosperous. I put a burden upon it of 50,000*l.* I have 50,000*l.* of capital of my own. After 10 years of bad business I feel myself compelled to sell the factory. I get 50,000*l.* for it. The whole of that goes to pay off the mortgage, and I am ruined. That is the process through which thousands of persons have gone during the last few years; it is the position in which thousands stand at the present moment. The mortgages, which were originally but a reasonable and moderate portion of their property, now eat up the whole property.

4798. That is by reason of depreciation in the value of the property?—Exactly.

4799. That no doubt arises from other things than the appreciation of gold?—No doubt it does.

4800. In Lancashire, for instance, are there not a number of mills which were formerly supposed to be worth a great deal, worth only a very little now, because they are not suited for the kind of machinery necessary to turn out the goods that are now used?—Even the newest mills are very largely depreciated.

4801. Is it not a fact that there is a good deal of depreciation due to the cause which I have suggested?—Some of it is due to that, but I think a large part of it is due to the other cause, because had this country had a silver standard this depreciation would not have taken place, and those difficulties would not have occurred. My own impression is that if at the present time you could put up to auction the whole of the industrial plant of this country and sell it off, it would not do much more than pay the mortgages and fixed charges.

4802. But now, taking railways which you have given us, people have to pay a large amount of this annual burden of debt, but they can get money now more cheaply than ever they did, can they not?—They can borrow at a lower rate of interest.

4803. And they have of late been paying off old obligations and contracting their new ones at a considerably lower rate of interest?—No doubt they can borrow at a lower rate of interest, but if railway rates are reduced, as is generally thought to be unavoidable and quite necessary, they will still be left with this enormous burden of mortgages, and their own property will be greatly reduced.

4804. Then as regards the payment of the public debt, the people who would suffer would be the taxpayers, who would be obliged to find the amount in gold although the incomes which they derived from business and otherwise were less?—Yes.

4805. Of course, so far as those payments were made by persons with incomes payable in gold, there would be no suffering at all?—No, the class that benefits by this state of things is the annuitant class, all who have fixed incomes payable in gold. They benefit undoubtedly at the expense of the rest of the community.

4806. Of course it is very difficult to work the matter out, but the people who have been paid interest or dividends by all these railway companies, and in respect of so much of the national debt, from which a certain deduction was made for the payment of the taxes of the country, would feel no additional burden?—I suppose not.

4807. The burden would result in the case of people trading, I suppose, or engaged in agriculture?—I should say the classes that suffer most from the present state of things are all the active industrial classes of the country, the farming class, the owners of factories, mines, workshops of every sort and kind, ships, and so forth. These people all trade upon borrowed capital more or less, and, owing to the shrinkage of their property, the borrowed capital comes to represent a far larger per-centage of their property than it once did. In the case of very many they have been sold off, and the mortgagee has appropriated the property, and oftentimes it has not been enough to pay off the value of the mortgage upon it.

4808. The depreciation of agricultural land arises from low prices, does it not?—Of course the fall of

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prices in the produce has forced down the price of the land.

4809. Therefore the cause of the low value of land must be sought in the cause of the fall of prices?—Yes.

4810. Do you think that the fall of prices of agricultural produce is due entirely to the appreciation of gold, or largely?—I would divide it between the appreciation of gold and the opening up of new markets, and the cheapening of transport and facilities of various kinds. I have no doubt that a very considerable part of the fall in wheat is owing to the imports from India, which the low price of silver relatively to gold enables the people of India to make to this country. Just as the rupee falls, so the Indian producer can lay down his wheat cheaper and cheaper here. When the rupee is at 1s. 6d., the Indian producer can lay down his wheat here at 30s. a quarter, but when the rupee is at 2s. the Indian producer can lay down his wheat here at not less than 40s. a quarter; and, of course, when he sells lower than others he forces down the price of all the other wheat to the same rate. It is the lowest seller that dictates the price to other sellers.

4811. That must depend, must it not, on the extent of his supply as compared with the supply elsewhere? He cannot, by selling a limited quantity at a low price, force everybody to sell at a loss?—No, but as long as the supply keeps up to the same level, and he chooses to take that price, he forces down all the other supplies to the same price.

4812. Do you know what proportion the Indian wheat imported into this country bears to the total quantity of wheat imported?—I think India now sends about 4,000,000 of quarters of wheat; we receive altogether, I think, about 15,000,000 of quarters of wheat into this country.

4813. That would be something over 25 per cent.?—Yes, I think India sends about 4,000,000 quarters of wheat; perhaps not all to England, but I think she exports now about 4,000,000 of quarters.

4814. Of course you must look at the relation which what India sends bears to what is produced here, plus what we import from elsewhere?—Well, the effect of these very cheap supplies is gradually to lessen the area sown in this country. Every year the area gets less and less, and we are also getting somewhat less from America than we did, but a very small surplus of supply is quite sufficient to force down the market.

4815. We may take it that in your view a large fall in value at all events has been brought about by the demonetisation of silver in Europe?—Yes, concurrently with the falling off in the supplies of gold.

4816. In addition to the evils that you have already mentioned, in your view the result of an appreciated standard is that the creditors benefit at the expense of the debtors?—Quite so. I think that is one of the most serious evils.

4817. That, of course, must depend on the time at which the parties respectively lent and borrowed?—Yes, but in the main debts are permanent: that is to say, the trader who mortgaged his property in 1873 for 50,000*l.* cannot afford to do without the mortgage at any future time; he is obliged to keep the mortgage on, to keep renewing it. Take the case of landowners. They cannot afford to reduce the amount in mortgage in depressed times, they rather increase it. I think the total amount tends to increase from year to year. At the present moment it perhaps represents, we shall say, probably 50 or 60 per cent. of the property of the country. Probably 10 years ago it did not represent more than 40 per cent. of the property of the country.

4818. In your view, as the debtors are the most numerous class and the creditors are the rich and leisured class, that increases the evil?—I think so; I think the working of our whole system tends to make the richest class in our community still richer at the expense of a far larger number of comparatively poor people.

4819. Do you include in that far larger number of

comparatively poor people those who borrow 50,000*l.* upon a manufactory?—Well, I should say that, as a rule all the industrial class, large or small, are large borrowers of capital. The banking deposits of this country, which amount to 500,000,000*l.*, are nearly all lent out to the trading class. The trading class absorb the bulk of the floating capital of the country, and use it in their business, in addition to a certain amount of capital of their own. Well, the very heavy fall in the price of all property has, so to speak, largely bankrupted that class. It has swept away their own margin of capital, and their property now is little more than sufficient to pay the heavy claims upon it.

4820. Still the person who lends that money, the creditor takes a low rate of interest for it; the person who borrows it, if trade is profitable, makes large profits, which the creditor in no respect gets the benefit of?—Quite so.

4821. Therefore it is natural, is it not, that the risk should rather fall upon the debtor than the creditor?—Well, I think not. During a period of ordinarily prosperous trade it is a very healthy operation this, by which the capital of the leisured class is used by the actively employed class. The leisured class is content to take four per cent. for it, we shall say, and the employed class used to make, perhaps, an average of eight per cent. interest. It suited them to borrow, and to give their brains and energy to the management of business; but for the last 10 years, the employing class has, perhaps, not in the average, earned so much as four per cent.; I much doubt if they have earned that, and there has been such a shrinkage in the capital value of their property, that now, in many cases, it would only be sufficient to pay off those mortgages, and leave them nothing at all. They have had all the labour, all the toil, and all the anxiety of conducting business for many years, and find themselves getting poorer and poorer all the time, whereas their creditors, who have had no trouble at all, are entitled to their full tale of bricks.

4822. Because they would have got none of the benefit if things were profitable. The whole benefit and profit would have gone to the debtor?—The debtor would have been entitled to that.

4823. Yes, but one does not quite see why you suggest that it is reasonable that some of the loss should fall upon the creditor, if things are not profitable?—I would rather put it this way. It is not so much a question of reasonableness as what is for the good of the community. Now, seeing that the active industrial class is a far larger class than the capitalist class; seeing also that they are the mainspring of the prosperity of a country, I think what works for their good is of more importance to the country than what works for the good of a comparatively small class of capitalists, some of whom are enormously wealthy. And the hardship I feel arises from this, that the burden of debt has been artificially increased by changes in law. If these changes in law, which demonetised silver so widely, had not taken place, this burden of debt would not have been increased nearly so much; prices would have been higher; trade would have been more profitable.

4824. You attribute to this depression of prices, I believe, the protective tariffs which have been imposed or increased in different continental countries?—I think it has largely tended to increase protective tariffs all over Europe. It is only within the last few weeks that both France and Italy, and I think Germany also, have increased their duties upon food owing to the outcry of the agricultural class.

4825. Coming now to the remedy, what do you think is the proper remedy for the evils to which you have called attention?—The only practicable remedy that I can see is a restoration of silver to its full use as money by a group of nations.

4826. And coining silver at a fixed ratio to gold?—A fixed ratio to gold, yes. I would restore the system which existed before 1873 in France and the Latin union, only I would make it a condition now

that the union should be a much larger and wider one.

4827. What area do you think would be sufficient to bring about the results that you desire?—I think if we could induce Great Britain, the United States, France, and Germany, to enter the union, it would virtually fix the ratio for the whole world, and very soon would be adopted by nearly every country in the world.

4828. (*Mr. Courtney.*) Would Great Britain include India?—I think it would be better to keep India a single silver standard country; that is rather my impression.

4829. (*The Chairman.*) Why would you exclude India if bi-metallism is the proper basis?—It is a very difficult question, but I think on the whole it would be found desirable to keep India a silver standard country. One reason is this, that the European powers might be afraid of a deluge of silver coming into Europe in exchange for their gold. I think that is an imaginary fear, but it would probably operate as a very real drawback.

4830. (*Mr. Houldsworth.*) Would you consider that if the countries that you named adopted the bi-metallic system and India was excluded, that still the bi-metallic law would operate in India?—Oh, entirely, quite the same as if she was included.

4831. (*The Chairman.*) That is to say that the effect of introducing bi-metallism into these other countries would be to raise the price of silver?—Yes, up to the ratio at which it was agreed to fix silver. Whatever price was adopted the price of silver in India next day would rise to that point.

4832. What is the ratio that you think should be adopted?—That is a point upon which we ought to be allowed liberty of opinion, because it depends on expediency. I think it is of such importance to the world to gain a bi-metallic system that I should be prepared to sink any special views of my own in deference to whatever might be adopted by the nations interested in the matter, but if you ask me what I think would be fairest and justest to all concerned, I certainly should say the old ratio, because upon the old ratio the great national debts of the world were contracted amounting to about 5,000,000,000*l.* sterling, and I think it is more just to all concerned that those debts should be restored to the basis upon which they were contracted instead of being made payable in the artificially enhanced standard.

4833. You mean the basis on which they were contracted, in this sense, that at that time silver bore a particular relation to gold by law in certain countries and by market value in other countries?—That is all. Even in England, where we had a single gold standard, we felt the effect of the French law quite as much as if we had it ourselves. That is to say, the value of the gold in England was as much affected by the French law of 15½ to 1 as if we had had the law of 15½ to 1 in England.

4834. Would the effect of that be to raise prices?—I think in all gold countries it would raise prices somewhat; in silver countries it would reduce them and produce an equilibrium between the two.

4835. Would it be likely to raise all prices?—In gold countries not very much. I think it would be a very gradual process, but it would partly undo the great mischief which has been caused by the excessive fall of prices.

4836. You think that there would be no injustice in taking this course, because it would be only replacing the state of things which existed prior to 1873?—There would be a small injustice done to people who have pending contracts with silver-using countries for the purchase of produce, but that would rectify itself in a few months, because these contracts all run off in a few months, and a change of this kind should not be made without previous notice. I think the injustice, comparatively speaking, is trifling compared with the great injustice which has been already done to far larger interests by the demonetisation of silver. Of course, when an evil has once been done,

it always causes some disturbance to get back to the former state of affairs. I have no doubt of that, but I think the disturbance is but trifling compared with the enormous evils that have been done by the previous change.

4837. (*Mr. Barbour.*) I wish to ask you a question or two upon the effect of the supply of wheat from India. Suppose that the rate of exchange was such that India could supply any quantity of wheat at 30*s.* a quarter, would it not be necessary for the price of wheat grown in this country, or grown in America and sent to this country, to be reduced at least to 30*s.* a quarter?—It would force the price of all other wheat down to that point.

4838. Because otherwise it could not be sold; Indian wheat would take its place?—Quite so.

4839. And the American and English wheat having been sown, India might have to send only a very small quantity of wheat to produce this effect upon prices?—She would require to send a surplus of supply; it need not be a large amount.

4840. But if India had a surplus sufficient to supply any quantity, then the prices of English and American wheat could not rise above 30*s.*?—Of course not.

4841. (*Mr. Birch.*) You stated that there has been a material appreciation of the gold standard of late years, which the best authorities put at no less than 20 per cent., and this is shown by the heavy general fall of prices, though other causes have contributed to it. I suppose you would allow that some of the authorities deny the appreciation of gold, though they acknowledge a general fall in prices, which they attribute to various circumstances, affecting an over supply of commodities rather than a short supply of the article for which the commodities are interchanged?—I suppose there may be such authorities; though I have met with very few, I have read a great many opinions on the subject, and I think it is very generally admitted now by all thinking men that there has been a considerable appreciation of gold. I believe every economist in France and Germany admits it, so far as I know.

4842. You talk of the demonetisation of silver. Silver has not become demonetised. They have suspended the coinage in the Latin Union, but the 45,000,000*l.* in the Bank of France, and an enormous amount of silver in circulation, is just as much money as ever it was, and it is the same in Germany?—Strictly speaking, what we mean is the stoppage of the free coinage of silver. There has been a very considerable demonetisation, for Germany has sold off a large quantity of her silver. So has Holland and the Scandinavian countries; but speaking particularly, when we speak about the demonetisation of silver we mean the stoppage of the free coinage of silver.

4843. Then the gold discoveries in 1848 and 1850, of course, affected prices, but do you not think that the great stimulus that then was given to railways and the manufacture of steamers and other things went a long way to help to raise prices?—Well, I think that is just one of the results of a large supply of money. You communicate an impulse to one branch of trade that communicates an impulse to another branch of trade, and it gradually spreads through every branch of trade.

4844. But then the result would be that with new facilities for moving produce, prices would naturally fall on account of increased production, would they not, and the labourers employed in making the railways would lose employment?—I do not think that one could give a very sure answer to such a question as that. Prices kept rising from 1848 or 1849 up to 1873. It was a long period. The railway system of this country was almost completed before 1873; it did not cause prices to fall.

4845. (*The Chairman.*) You said that prices rose till 1873, but, taking the *Economist* index numbers, I find that in 1871 they were lower than in 1868; in 1869 they were lower than in 1868; and in 1870 they were exactly what they were in 1868?—I am quite aware of that.

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4846. Then what do you mean by speaking of prices constantly rising?—There never was and never will be such a thing as a continuous rise of prices year by year. One has always to speak of averages or groups of years. What I mean when I say that prices rose 40 per cent. from 1849 up to 1873 is just this, that there was a series of upward ascents in prices, varied by short descents, but still the ascent continued pretty constant up to 1873, and by that time the general level was about 40 per cent. higher than it was in 1849.

4847. (*Mr. Birch.*) You stated that the annual supply since 1873 has been insufficient for the purpose of currency?—It is hardly possible to say what supply of money is sufficient and what is insufficient for currency, because whatever the supply is, prices adapt themselves to the supply, and there appears to be sufficient for these prices. The two things mutually adapt themselves to one another.

4848. Yes, but you see when Italy thought she would introduce a gold currency, she wanted about 18,000,000*l.* of gold, and she obtained them without any difficulty at all?—Quite so.

4849. In the same way the other day about 5,000,000*l.* were required, I think, by America, and she obtained them from the Bank of France, paying 5 per mille premium?—Quite so.

4850. Therefore it would not appear that there is this great scarcity?—I have never said that there was a scarcity of currency; I do not think there is.

4851. Then you state that it is true that as nations advance in civilization they dispense more and more with coin, and use cheques and other economising expedients, but in this country and America it is doubtful if these expedients have developed much of late years. Is there not ample proof that, at all events in this country, there has been an immense development in economising expedients?—There was a great development. I am not aware that it has made much more progress the last 10 or 15 years. I see the returns of the Clearing House have been nearly stationary the last 10 years.

4852. Then as to nations using inconvertible paper currencies going on to a specie basis, can you explain how you think they would be able to carry it out?—The way Italy carried it out; the way the United States carried it out; the way Austria hopes to carry it out. They gradually acquire the means of doing so, if they steadily set it before them. I admit that it is a very difficult thing for a poor country to do. Italy was a very poor country a few years ago, but she managed, nevertheless, to make a convertible currency.

4853. Only by making a loan in this country which enabled her to do it?—I have no doubt there would be a continual succession of countries, one after the other, that will seek to establish themselves upon a specie basis. That you may take for granted, it is the natural progress of civilisation.

4854. You have stated that if the currency of the world was reduced to one-half of what it is now, during the next 20 years there would be no scarcity of bullion at the central reserves, and the rate of interest would rule very low; that we should see an incessant fall of prices, intense depression of trade, a total absence of all enterprise, and a less demand for capital than usual. That to me is such an extraordinary statement that I should like to ask you how you think that could possibly be arrived at?—I think the history of the past proves that that is accurate. You will find—it is a curious fact, but it is the reverse of what one would think at first sight—that when you have a very large production of the precious metals you have generally high rates of interest. We never had higher rates of interest in this country on the average, I suppose, than from 1850 to 1873. They were much higher, I believe, than any preceding period, say from 1820 to 1830, from 1830 to 1840, and from 1840 to 1850, and they were also much higher than from 1873 on to the present time. Now, you would have said, at first sight, that, having such a

very large supply of both gold and silver, especially gold, coming into use as money, we ought to have had low rates of interest; but the fact is exactly the opposite, and this is the reason of it. It caused a steady rise of prices, and every business man knows that that quickens industry in the most marvellous way, every one seems to be making money, every manufacturer tries to increase his production, it sets agoing the whole industrial machinery with the greatest energy, because every man is filled with hope and expectation; new enterprises turn out well, and the result is that the demand for capital on loan increases in even a greater proportion than the supply of money that comes into currency, and therefore the rates of interest become higher.

4855. Surely the increased gold supplies did not cause the high rate of interest or the monetary crisis. The true reason must be found in speculation and great stimulation to trade of all descriptions?—Yes, I have no doubt there was a great stimulation to trade of all descriptions, and that that stimulation ran to excess, as is well understood. Whenever you have a long period of profitable trade you have always a sort of after-growth of speculation and inflation on the back of it, and that produces the crisis which is nature's wholesome way of throwing off the evil.

4856. If bullion were drawn in by the banks so as to reduce the currency by one-half, the tendency would surely be to make interest high?—I think that would be the first and immediate effect, undoubtedly, but the tendency of long continued depression of trade is to use much less money and to throw the money you have into the large reserves.

4857. With regard to using much less money, I find it is generally estimated that in our enormous operations only about one or two per cent. is paid in cash, the balance being settled by instruments of credit. Do you think it is so?—Yes, but you require to hold in the Bank of England, and other centres, an adequate supply of bullion, otherwise the whole commercial fabric would topple down some day. I think we hold too small reserves in this country for the amount of business we do.

4858. With regard to the very heavy losses you referred to in manufacturing. In stating that the fall was 40 per cent., I suppose you took into your estimate the fall in the raw material, and calculated what the fall had been in respect to the manufactured article?—No, this is the calculation that I made. The exports of this country were 212,000,000*l.* last year; the quantity had increased so much that, if valued at the rates that prevailed in 1873, it would have been 360,000,000*l.* That shows an average fall of 40 per cent. in the commodities exported from this country, and the fall is about the same in the commodities imported into this country, they have also fallen about 40 per cent. too.

4859. (*Mr. Chamberlain.*) Since when do you estimate that that fall has arisen?—Well, it has been spread gradually over from 1873 to 1886, which was the last year of the whole series. The scale of prices last year, 1886, was the lowest, with one exception, for 100 years. We have come back to the prices of 1849.

4860. Now, do you think that low prices are in themselves an evil?—I do not think you can say that low prices in themselves are either a good or an evil; you have to take them in relation to the previous state of contracts, and obligations, and charges. I think low prices are a great evil coming after a period of high prices, a long continued period of high prices, when all sorts of obligations have been contracted upon the basis of the high prices, then, I think, a fall to a very much lower standard of prices upsets all relations of society.

4861. That means that a disturbance in prices, involving a disturbance in obligations, is an evil?—Yes.

4862. But not that low prices are an evil to the persons who have to pay them?—If you limit it to the persons who have to pay them, and exclude the

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persons who have to sell at the low prices, perhaps what you say may be true, but you cannot separate the one from the other.

4863. Take the illustration that you gave us, which was that in the 14th and 15th centuries prices were lower than at any other time in our history. Are you aware that Thorold Rogers and Stuart Mill, and other economists, contend that the general condition of the people in the 14th and 15th centuries was much better than it was subsequently in the 16th and 17th centuries, when prices went up?—I think that applies to a particular period in English history, when the population had been immensely reduced by the “black death,” and when there was an amplitude of living in this country for 100 years or so. I do not think it had anything to do with the scale of prices at all. I would say, speaking broadly, the worst condition that humanity ever lived in was the middle ages! I would say that the degree of misery that existed in Europe from about the 6th century down to the 14th was the greatest we know of, and that was a period of very low prices.

4864. You would admit that low prices are good for purchasers?—If their income remains the same.

4865. Then how is the good to the purchaser lost so that low prices became on the whole an evil?—I would not say that low prices in themselves are an evil. It does not very much matter what scale of prices obtains as long as it is a permanent scale, and all the obligations of society are reconciled and adapted to that scale. What I do say is a very great evil is that when you have had a customary scale of prices in the country, and heavy obligations based upon it, that that scale should suddenly and greatly be shifted. Then you bring about all sorts of social dislocations.

4866. That state of things has happened, according to your view, recently; a fall of 40 per cent. in prices has taken place in the course of 15 years. How has that affected the condition of the working classes? In the first place, I think you admit that their wages have not been reduced?—I think the general scale of wages has been very considerably reduced.

4867. Let us take the ordinary mechanic who is called a “fitter.” Is it not the fact that 30 years ago his average rate of wages was 28s. a week?—I could not answer the question.

4868. Do you know that his average rate of wages now is at least 32s. a week?—It may be so, for all I know.

4869. And with regard to that very large class which represents hundreds of thousands of workpeople who depend upon engineering and similar work, wages have increased in the last 30 years?—My impression is that there is no large class of operatives amongst which wages have increased. I think that they have largely decreased since 1873 amongst the great body of the operatives as far as my experience goes.

4870. I said 30 years?—Wages rose enormously from 1850 to 1873. I have gone over a great many tables as to the average wages in manufacturing districts between the period of 1840 to 1850, and the period from 1870 onwards, and I should think prices on the average rose 50 per cent., but I should say wages have fallen on the average, taking all the employments all the country round, I should say wages must have fallen on the average somewhere about 20 per cent. since 1873. Of course I am speaking very widely and loosely.

4871. I can only put it, however, to you as far as your knowledge goes. I take this class of “fitters.” Is it a fact that their wages, the wages of engineering mechanics, have fallen 20 per cent. or even 10 per cent. since 1873?—I think it is quite possible that there are several skilled branches of labour in which wages have not fallen at all, and a few in which they have risen.

4872. Take the case of masons and builders; have their wages fallen 10 per cent. since 1873?—I could not say, but they have had an immense amount of

short time. The average earnings are really what we have to deal with.

4873. Then take the case of agricultural labourers, not skilled labourers; have their wages fallen 10 per cent. since 1873?—I have a very good reply to that. I have a statement here, prepared by one of the largest estate agents in England, in reply to a number of queries I put to him as to the condition of the agricultural classes. Mr. Squarey has taken great pains to make up this statement as to the fall in all the different departments of agricultural life, and he puts the average fall in wages at 20 to 30 per cent. since 1873.

4874. Well, take the average according to your estimate of a 20 per cent. fall?—It is more a guess than an estimate that; I would hardly call it an estimate. I know something of the average wages of operatives in the cotton districts. I think the fall there is not more than perhaps 10 per cent.

4875. But assuming, for the sake of argument, that it would be a fair estimate all through to take the fall in wages at 20 per cent., inasmuch as the fall in prices has been 40 per cent., the labouring classes have benefited by the fall to the extent of 20 per cent.?—That would only be the case if they had constant employment and full earnings. Now, my belief is that, for the last 10 or 12 years, there have been very few trades indeed in which the labouring classes have been fully employed. There have been very long periods of short time, frequent strikes, and great social suffering.

4876. You are not aware then that inquiries have been made, which have shown that the total sum of wages paid has not diminished?—That may be so, of course. The population of the country has increased since 1873 by 4,000,000 or 5,000,000.

4877. But any change due to the increase of the population would be rather outside our present inquiry, which is how far changes have been caused by the depreciation in prices?—No, but I thought you were speaking of the total amount of wages paid. The total amount ought to have been steadily increasing along with the increase of population in a healthy state of trade.

4878. But your impression is that there has been a great want of employment. What I want to suggest to you is, that so far as there has been any want of employment, it is due entirely to the increase of the population, and not to any lack of the amount of employment which existed previous to 1873?—My impression is that trade in all its branches has been very slack and very unprofitable since about 1876. It began to tell upon labour about 1878, and I think, from 1878 on to 1886, the average employment was much less regular than it was in the previous 10 years, and the total earnings of the men were much less. I think that this is in accordance with the statements of all the great trade unions whose reports I have been in the habit of reading from year to year.

4879. There are two points which are quite separate, and which I want to keep separate for the moment. The first is whether trade has been profitable or not; the second is whether it has been equal in volume. Now I am dealing absolutely with the volume of trade. Of course you are aware that the traffic returns of the railways show a continuous increase?—I think the rate of increase has been considerably less of late years.

4880. But I am talking of the coal traffic. I put it to you that up to last year, at all events, there has been a continual increase in the coal traffic of all the railways together. 1883 was the highest ever attained, 225,000,000 of tons of the weight of goods and minerals conveyed. In 1884 there was a slight falling off to 219,000,000, and in 1885 it was 218,000,000. So that practically there has been no falling off from the very highest. If you go back to 1873, which, I think, is your date, the total weight then was only 162,000,000?—Yes, but how much has the mileage increased?

4881. The total increase there is 45 per cent. between 1873 and 1885. Well, now, I understand your

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argument is that the appreciation of gold affects trade injuriously, but the only illustration you have given of it is the case of the smaller manufacturers, who cannot bear the loss of their capital caused by the fall of prices, and who are cleared out of the way?—No, I think I gave many more illustrations than that. I think the effect of a steady long-continued fall of prices upon the trading classes is a general impoverishing of all, great and small, and the extinction of the weaker class who have not had reserve capital of their own.

4882. And the extinction takes place because their original capital is reduced in value by the fall in prices?—Yes.

4883. Is not that fall in prices always gradual? It has been gradual since 1873, has it not?—It has been in some periods quicker than others. It has not been a continuous fall; it has been met by counter eddies, but the general tendency has been downwards all the time.

4884. And as it affects the raw material as well as the production, is not the manufacturer able to guard himself against serious loss?—Not fully. All men have to take certain risks, more or less; the custom is to hold stock.

4885. But in a falling market the tendency is for a business man to reduce his stock?—After the losses have been made. The first heavy fall of silver caused enormous loss, because people were caught with very large stocks, and goods are mostly sold in the Eastern markets on credit. Our trade is largely with silver-using countries and on credit, and we were suddenly caught when we had immense outstanding credits with those silver-using countries, and enormous loss fell on the mercantile classes and on the manufacturing classes who are shippers of their own goods in consequence of that.

4886. I am not denying that there is a loss, but I mean the loss would not be all that would appear from the total fall in prices?—I think the total fall in prices was spread over the existing stock, and has been realised at some time or another by some one or another.

4887. Then to the extent to which the smaller traders were extinguished the larger traders would gain, would they not?—No, the larger traders suffered very much also.

4888. Yes, but they would gain by the absence of subsequent competition?—No, that has not been my experience of business. I think the general profitability was exceedingly reduced all round, and the weaker class went to the wall, and the stronger class struggled on with an impaired constitution.

4889. But surely the extinction of the weaker class, *pro tanto*, is an advantage to those able to hold on?—But when a firm fails, the manufacturing plant is bought up at a much lower price and set agoing by some one else; the trade is not extinguished.

4890. The loss is an individual loss, and not a loss to the country?—I think it is a loss to the country when a large class of people become impoverished who were formerly well to do.

4891. But your view is that, on the whole, taking large and small traders together, the profits of trade have been reduced from 8 per cent. to 4 per cent.?—Well, that is hardly an estimate. I would put it this way, that whereas in times of prosperous trade, such as we had prior to 1873, you might reasonably have said that, in most branches of trade that were vigorously and well conducted, there ought to be a profit of 8 per cent. on the average of the working capital, and if the ordinary rate of interest was 4 per cent., then there was an inducement to borrow capital, because the person borrowing it would pay the 4 per cent. and have another 4 per cent. profit to himself. That has pretty much disappeared since then.

4892. Your view, therefore, is an estimate, of course, that the profits have been reduced from 8 per cent. to 4 per cent., which is a fall of 50 per cent.?—I think it is exceedingly likely, if we had any real means of assessing the profits upon mercantile trade from

1876 to 1886, that we would find the average profit on capital not to be more than one-half what it was in the previous 10 years.

4893. Then how do you account for it that that does not appear in the returns of Schedule D.?—I cannot fully account for that. I have often puzzled over it. I should think that probably a large part of Schedule D. may come from interest on lent capital. I do not know whether that is so or not.

4894. One can understand if the fall in profit had been a mere 5 per cent., or something of that sort, that it might not appear in the returns; but if your impression is anything like accurate that there has been a fall of 50 per cent. it must appear in those returns. It is impossible to suppose that those returns would have continued to increase in the face of a reduction of 50 per cent. in the total amount?—Yes, because I think a very large part of the commercial profit of England now goes simply in payment of interest upon borrowed capital, a very large part of it.

4895. A larger proportion may, but not more in amount than before 1876?—I could not say. I think a much larger proportion of the trade of this country is now carried on by borrowed capital than was the case 10 or 15 years ago. I have asked myself the same question as you ask me now a hundred times, and it has been to me a perfect puzzle how the income tax returns keep up, because, from my experience of the cotton trade, a pretty wide one, I should certainly say that the great mass of that trade has been carried on at an exceedingly small profit since about 1874, so small in some years as to be hardly perceptible at all. I have compared notes with many of the largest people in the trade, and I have found no difference of opinion on the subject. I have got the returns of many companies, and the returns of private individuals as well, and that is the result of my experience.

4896. Do you not find that people are very ready to confess to bad trade, and they are not very willing to confess to good trade, or very large profits?—Well, after allowing for all that which my business experience has taught me as it has taught you, after making every discount and allowance, my opinion is that the capital employed in the cotton trade of Lancashire has returned very much less profit during the last 10 years than it did the previous 10 years.

4897. But are you judging entirely from one trade? It may be the case in regard to the cotton trade, and yet any deficiency in the cotton trade may have been more than made up by the other trades in the country?—Well, I am speaking of it now, but I think you would get the same information from all persons largely concerned in the iron trade, the coal trade, and the shipping trade, and, indeed, in most trades of the country. That is my impression.

4898. But I ask you whether the only adequate explanation of the income tax returns is not that the total amount of the profits of the trade of the country must have continued as large as ever, although the proportion of profit upon the returns may be less than it was, and, in fact, whether the whole tendency of modern business has not been to get larger returns with a smaller proportion of profit, the actual profit being, perhaps, the same?—I think there is one particular branch of trade that has benefited; that is the distributing trade. A very great fall in the wholesale prices has benefited the distributing trades because the retail prices have not fallen in the same proportion, and they have got a good portion of the profit. These retail prices have not fallen 40 per cent. Wholesale prices last year had fallen 40 per cent., and the whole class of retailers have, I think, done well.

4899. What I want to put to you is, that while your impression is that this appreciation of gold has been unfavourable to trade, you do not find any trace of the depression in the official returns?—I think you do find a very considerable trace of it. Look at Mr. Goschen's budget speech for instance. I will just quote a few of his figures, showing the extreme want of elasticity in the revenue of late years, as an example.

4900. Of course we admit that the elasticity is not so great, that is to say, the revenue does not come up by leaps and bounds, but it remains at a higher level; the income tax is at a higher level now, certainly, than it was in 1873, very much higher?—Yes, but the remarkable point is that from 1870 to 1875 it increased at the rate of 25 per cent., while for the last five years, allowing for increase of population, it has been stationary.

4901. In that case the only evil you would point would be a failure continually to increase, but not any positive reduction in the profit or volume of trade?—But I think that of itself is a very noticeable feature.

4902. But do you confine your argument to that?—No, I do not confine it, but I say that is a very notable point, because in other countries I imagine there has been very great progress during the last few years. In the United States there has been great progress; in this country we have had a cessation of progress.

4903. (*The Chairman.*) In the United States I thought they had been suffering from low prices?—The general trade has improved considerably. It went down very much in 1880, and is recovering again now; is that the case?

4904. (*Mr. Houldsworth.*) Is it not the case that in Schedule D. the incomes returned from foreign investments are included, and will not that possibly form an explanation to some extent?—Possibly.

4905. (*Mr. Chamberlain.*) The gross amount of property and profits under Schedule D. from 1870 to 1874, which is the period you take as the favourable period, was 210,000,000*l.*, in the last period from 1880 to 1884 it was 268,000,000*l.* That is to say, it has increased 25 per cent. during the time in which you estimate that profits at home have diminished 50 per cent.?—I did not say profits at home, I said the portion of profit represented by capital of those engaged in trade I thought was very much less, but the portion of profit represented by the hire of capital probably remains as great as ever.

4906. Very well, but in the time in which you estimate that reduction of 50 per cent. upon the capital engaged in trade, the returns of the income tax under Schedule D. have increased by 25 per cent.?—In reply to that I will quote what Mr. Goschen said, which does not in the least correspond with that. He said, "Under Schedule D., containing, as it does, the profits of trade and business, in 1869 the assessment was 161,000,000*l.*, while in 1876 it was 242,000,000*l.*, being a jump of 80,000,000*l.* in seven years. But from 1876 to 1886 it only rose from 242,000,000*l.* to 247,000,000*l.*, being an increase of only 5,000,000*l.* in 10 years. I wish the Committee to grasp the full significance of these figures. While in the earlier period there was this gigantic increase in the revenue of the country, the turn came in 1876, and since then there has been only an aggregate increase of 5,000,000*l.* in 10 years."

4907. That is to say, the increase has been at a much less rapid rate, but still there has been an increase?—A much less increase than of population.

4908. But I put it to you that any increase at all is inconsistent with your view that there has been a very considerable decrease in the most important item of it?—I admit I cannot fully understand it. I have thought over this for many years. One partial explanation I would give is this. I think the income tax is collected now very much more rigidly than it was 20 years ago. I am speaking from facts within my own knowledge when I say that, in the early years of income tax, a large amount of income evaded paying income tax, and I have known of incomes which paid only for one-fifth or thereabouts of their amount, whereas of late years I have known cases where people have paid considerably over their income. Assessments have risen higher and higher until people think they are assessed beyond their income. I would not be surprised if that accounts for an enormous sum if it can be worked out.

4909. I want to turn for one moment to the other evil which you consider arises from the appreciation of gold, that is, the effect of the burden of fixed contracts payable in gold. I understand that that is an injury only to one class, the class of debtors as compared with creditors; it is not an injury to the country as a whole?—I think it is an injury to a very much larger class, and a class that ought always to be considered, namely, the active industrial class who are working for their living, whereas the people that benefit are, as a rule, people who do nothing at all except live upon the interest of their capital.

4910. You think the debtors are a more deserving class of people than the creditors?—I think the industrial class actively engaged earning their living ought to be more considered than the idle class who already have more riches than is good for them.

4911. But I am right in saying that whatever weight may be attached to that it is not an evil to the country as a whole, but to one class of the population as compared with another class of the population?—Well, my reply to that is that I think all unjust transference of wealth from one portion of the community to another is an evil to the country as a whole.

4912. I will change the word and say, not that it is not an evil, but that it is not a pecuniary loss to the country; it is a pecuniary loss to a class of debtors as compared to a class of creditors?—Well, I will give a strong illustration of what I mean; not a very happy one you will think, but it brings out what I mean. Why is thieving a loss to a community? The community is not poorer on account of the money stolen, it is only transferred from one man's pocket to another's, therefore you might argue that it is no disadvantage to a country to have a class of thieves who live by plunder, but all communities think it is a very great disadvantage. I do not wish to infer the analogy is complete, but I say that any unjust transfer of wealth by means of law from one class of people to another is a great injury to a country, especially when the transfer is made from the poorer to the richer class.

4913. Now, I want to consider the case of these two classes. You put the debtor as above the creditor, but is not the creditor a person who by industry and frugality has collected the capital which he lends to the debtor?—I would say that, speaking broadly, the large capitalists represent reservoirs of capital which have been accumulated for centuries. These reservoirs are used all over the country amongst the multitude of small traders. These traders are the brains of the country; they carry on the trade of the country; their enterprise develops the country, and upon them hang for sustenance the great mass of the labouring class. I say it is much more for the good of the country to have the trading community prosper, which means prosperity to the vast mass of those who hang upon them than it is to add to the already excessive riches of a small class of capitalists.

4914. But you propose by legislation to transfer from one class a part of their property for the benefit of another class?—No, I do not accept that as a fair statement. I say unjust legislation has added to the weight of debts in all countries having a gold currency; unjust legislation has benefitted the capitalist class at the expense of the vast mass of the community. I wish, then, legislation to undo the wrong that has been done, and place us where we stood before silver was demonetised.

4915. (*Chairman.*) Do you think that the bulk of the money which has been invested in industrial occupations, by way of loans or otherwise, by those who are not carrying them on has been mainly from the resources of a few or a considerable number of wealthy capitalists? Has not the bulk of it come from the pockets of persons of small means?—I should think not. I should think that the loanable capital in this country, speaking broadly, mainly belongs to the capitalist class.

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4916. (*Mr. Chamberlain.*) But you take the bankers of the city of London as the type of that capitalist class. Are not their deposits made up of enormous numbers of very small sums from frugal people, who put them there for safety? No doubt the capitalist class includes, for instance, the savings banks, which includes over 80,000,000*l.*, so that you can hardly anywhere draw an exact line between a class that are creditors and a class that are debtors, and a class of capitalists and a class who are not. You may say all the traders are capitalists up to the extent of the money that is employed in their own business, but in addition to that they employ borrowed capital, and that is drawn from the class which do not work at business themselves?—

4917. (*Mr. Courtney.*) Take the case of the land-owners, who are, as you say, very greatly indebted. Is it not the fact that a very large portion of their mortgages are held by insurance companies, who represent the savings of the most frugal and industrial classes?—No doubt they are, but I say it is a very hard thing for a man who has inherited an estate worth 10,000*l.* a year, subject to burdens of 5,000*l.* a year, owing to fall of prices and depression of trade, his rental falls to 5,000*l.* a year, and he finds himself without any income at all, and subject to the same burdens which he was before. These burdens absorb now a far greater share of the value of the land than they did before.

4918. (*Mr. Chamberlain.*) That is an individual case and quite a different case. Your general proposition was this, that you thought that it would be a good thing to benefit the debtor (the industrious trading community) at the expense of the capitalist who lends him the money. What I put to you is, that in very many cases the debtor is an unthrifty and profuse person, whereas the capitalist is really the frugal and thrifty person?—There may be some instances of that kind, but I should say the opposite is the usual case. I think the trading class who employ capital are for the most part the thrifty, industrious, hard-working part of the community, and that those who live upon the interest of their money are for the most part the least industrious and the least frugal part of the community. Of course there are exceptions, but I think that is the rule.

4919. But the people whose capital is advanced to the traders of the country are not necessarily people who live on the interest of their capital alone, are they?—Not necessarily.

4920. The capital advanced is made up of the savings of an infinite number of persons?—I would think that a large part of the capital advanced belongs to rich people who simply live on the interest of their money.

4921. Are you a bank director?—No.

4922. Do you know anything about the proportion of small deposits in the banks?—Well, I am pretty familiar with the Scotch deposits which amount to 60,000,000*l.*, and know the class from whom they are drawn.

4923. Is not a large proportion of that 60,000,000*l.* made up of small deposits from small people?—No doubt it is.

4924. Who are not large capitalists living upon the interest of their money?—But the bulk of these very small people would benefit by the change that I have recommended.

4925. That is a different argument. I must press you on your particular argument which was that it was an expedient thing to benefit this debtor class at the expense of the capitalist class, because the capitalist class were large property owners living upon the interest of their capital. What I put to you is that the capitalist class to which you refer really consists to a large degree of very small capitalists, who do not live exclusively upon the interest of their savings?—Still, the owners of the ground rents of London are in the main a very wealthy class of persons. They belong to that class which are benefitted just now. The fund owners, not a very large

class, are also benefitted by the present state of things. The holders of mortgages and annuities of all kinds are very largely of the same class of people as the holders of ground rents. They are mostly people who are not actively engaged in business, and if you were to contrast what is good for them with what is good for the far larger class of people who are struggling on, doing the business of the country with great expenditure of brain and anxiety, I think I would consider the struggling and active class rather than the other class, but I do not mean by saying that that I would be doing an injustice to the one or the other. What I say is this: Changes of the law have taken place which have been a great injustice to the debtor class, for the benefit of the creditor class. Those changes were not done for that purpose. The effect of them was not foreseen at the time, but it is almost universally understood that they have had that effect. All I want is to restore fairness and justice as between two classes of the community.

4926. I have only one other question to ask you. Is not England as compared with other countries a creditor country?—Yes.

4927. On balance it is very largely creditor?—Yes of course, that is true.

4928. And therefore any alteration such as you propose would injure England as a creditor nation to the advantage of the debtor nations?—So far as England holds gold bearing securities, and only so far England also holds a great deal of silver annuities in regard to which she is losing. For instance, she is holding all the capital by which the Indian railways have been made.

4929. And why does she lose there?—The Indian debt is paid in silver.

4930. (*Mr. Barbour.*) What is raised in India is paid in silver?—But there is a large amount of silver annuities held here. I have always understood that we held about 100,000,000*l.* of Indian securities in this country.

4931. About 20,000,000*l.*, I think, speaking roughly?—Then the balance is held in India, but by English people.

4932. (*Mr. Chamberlain.*) I do not think that very much matters; the balance is very largely in favour of England as a creditor nation for gold?—Yes, I quite admit that, but I would also wish to call attention to this fact. It is commonly held that English investments abroad are almost entirely in gold paying securities. Well, I have travelled a good deal abroad and made inquiries in this subject, and the conviction has grown upon me that we have a much larger amount of capital invested in real estate, and plant, and trading operations of various kinds, the interest of which comes to us perfectly apart from the currency of the country; much of it is in fact in countries having inconvertible paper currencies, and that is the portion of our capital which is increasing, and from which the interest comes to us perfectly irrespective of the standard in which the interest is paid.

4933. (*Mr. Houldsworth.*) If the effect produced upon the debtor, or what you call the industrial class, is as you have described, will not that evil ultimately affect the creditor in the rate of interest that he would be able to get for his capital?—No doubt, the rate of interest is steadily going down, owing to the extreme unprofitableness of trade, and the interest of all good security is very much lower.

4934. So that it will not be ultimately a question between two classes, it will be that both classes ultimately will suffer?—Well, I think so in the main. I think wherever a great wrong is done to any large class of the community it ultimately diffuses itself over the whole community.

4935. (*Mr. Barbour.*) Do you not think that it would be a suicidal policy for a country to permit the appreciation of its own standard because on the balance of its foreign obligations it might be a creditor?—I think it would be an exceeding great wrong done to a far larger class of persons from whom

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I have made a computation that the amount of interest payable in this country in gold is not less than 150,000,000*l.* sterling a year, probably it is very much more than 150,000,000*l.* sterling, and I think, to add to the weight of all this in order that England may benefit upon 30,000,000*l.*, payable to us by foreign countries, whose gold securities we hold, would be a suicidal mistake.

4936. (*Mr. Chaplin.*) I understand you to say that the fact that the income tax returns have not fallen off is partly accounted for by increased stringency in collection?—I think so.

4937. May there not be other reasons to account for the same thing. Take for instance the case of farmers. They are assessed upon their rents at present, and not upon their profits?—Yes, quite.

4938. You have been asked a good deal about the classes of creditor and debtor. I want to put the question to you in another way. I understand your contention is this, that the adoption of the bi-metallic system would be to raise the price of all commodities to some extent?—In gold using countries.

4939. You include the labouring classes, I presume, because they have a commodity to sell, and that is their labour?—Yes, I think the effect would be to cause a rise in wages.

4940. Then it comes to this, that the owners or producers of all kinds of commodities, including the working classes, to that extent would be the gainers?—I think so.

4941. On the other hand, I understand you to admit that the holders of gold bearing securities might to some extent be injured?—To some extent; that is to say, their money would not go quite so far in purchasing.

4942. Even supposing they are injured or were injured, they would only be injured to this extent, I understand from your argument that they would lose only what they had gained and what their creditors had lost by the legislation which demonetised silver in 1873, 1874?—Certainly.

4943. It comes to this, does it not, that it really is a question between the interest of the owners of gold or gold bearing securities on the one hand, and the owners of all other kinds of commodities including the labour of the working classes upon the other?—Pretty much that.

4944. You would contend that the latter class is infinitely the more numerous?—Certainly.

4945. In reference to what you said as to the fixed burdens, you estimated them in round numbers, I think, at 200,000,000*l.*?—Well, at 150,000,000*l.* in the pamphlet that I published, but I think they are a good deal more than that probably.

4946. Could you tell me what proportion of the annual income of the country that amounts to?—Well, the income of the country is very difficult to arrive at, and there are many different ways of computing it. If you add together the income of all individual persons in the country it is supposed to aggregate 1,200,000,000*l.* sterling, but much of that income is counted over several times, and does not form a part of the net income of the country. I doubt if the net income of the country is anything approaching that.

4947. Could you give an estimate of your own?—Well, I used to think about 1,000,000,000*l.*, but I am almost inclined to think that 800,000,000*l.* would be nearer the mark, when you allow for the immense decrease in the price of everything. I mean the net annual production of wealth.

4948. Then I am to understand that you would estimate the fixed burdens of the country as amounting to something approaching to one quarter of the net annual income?—Something approaching one quarter of the net annual production of wealth. I would rather put it that way.

4949. Well, now, you stated that the first fall in silver occasioned an enormous loss. What is your opinion as to the future of silver? Supposing that no legislation is adopted, is the value of silver likely

to remain stationary, or to improve, or to fall further than it has done at present?—Well, my impression is that the same causes which have caused the last fall, the fall of 25 per cent. compared with gold, will produce another fall equally great in the course of the next 10 or 20 years, provided that there is no step taken by the nations of the world towards the re-monetisation of silver.

4950. What did you estimate the fall at which has occurred already?—Well, it is rather more than 25 per cent. compared with gold, for silver used to be 60*d.* an ounce; now it is 43½*d.* per ounce.

4951. Then I am to understand that if no measures are taken to prevent it, you estimate a further fall of 25 per cent. in the value of silver?—I think it is very likely that this will occur in the next 10 or 20 years if we are going on as we are doing now.

4952. To that extent, therefore, the fixed burdens of the country, the weight would be proportionately increased?—Quite so.

4953. Would not that become a very serious question?—I think so. That is one of the main reasons why I feel so deeply interested in this question, for I see that there is no finality to it. We are upon an inclined plane; we cannot stand where we are. Silver must either be used as money along with gold, or it will increasingly cease to be used altogether as money.

4954. In fact, then, your argument would lead to this, that if the price of silver in the future continues to fall, the margin between the net annual income of the country and the fixed burdens would become dangerously small?—I think so. I think the pressure upon all the weaker classes of the country would get stronger and stronger, leading to socialistic outbreaks at last.

4955. In fact it would become a great additional inducement to repudiation on the part of those who have contemplated such a thing?—No doubt of it.

4956. (*Sir John Lubbock.*) You said, if I heard you correctly, that if the silver fell 25 per cent. the weight of the fixed burdens of the country would be raised 25 per cent.?—I will explain what I mean, silver and gold used to be linked together by the French ratio of 15½ to 1, which kept silver in London at about 60*d.* an ounce. The amount of money in the world was about equally divided between gold and silver, speaking roughly, each performing about the same amount of work. Well, since then, silver has fallen in value as compared with gold fully 25 per cent., the effect of which has been to diminish prices in gold countries 12½ per cent. and to raise prices in silver countries 12½ per cent. from that cause alone. I am not speaking of the many other causes which have contributed to changes in price, but that change in the valuation of the two metals has had the effect of lowering gold prices 12½ per cent. and raising silver prices 12½ per cent. If another fall of silver of 25 per cent. compared with gold takes place it will just repeat that process; it will double those changes, another 12½ per cent. will be taken off prices in gold countries and 12½ per cent. added to the prices in silver countries. That would be the natural effect of it.

4957. Then do I understand you to contend that any fall in the price of silver would necessarily affect to the same extent all other commodities, because that is what you are contending now, is it not?—I think a fall in silver means a rise in gold. The two are convertible; it means the same thing. I will put it this way; silver and gold may be compared to a horizontal bar of which one half was gold and another half was silver. The beam was horizontal up to 1873 at the fixed ratio of 15½ to 1. One half of it is gold and the other half of it is silver. Well, since 1873, the gold end has risen and the silver end has fallen just exactly the same degree, and you may describe that either as a rise of gold or a fall of silver as you choose. Well, supposing another fall of 25 per cent. occurs, this is what will happen, the beam will be turned still more up.

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4958. (*Chairman.*) But I thought in 1873 they ceased to be a horizontal bar fastened together, and became detached, so that they were not tied in the same way as before?—No, they are not tied together. The one has fallen in relation to the other 25 per cent., and I am giving you a rough material illustration of how it operates.

4959. (*Mr. Chaplin.*) Let me ask you a question upon another point in connexion with the evidence you have already given. You told us, I think, that the classes who had suffered most from the present state of things were the industrial classes of the country?—Yes.

4960. And you illustrated that by the short time and the lowered wages at which the artizan classes in the towns were engaged?—Yes.

4961. Can you tell us anything as to the effect that it has had upon the wages of the working classes of the country, that is the agricultural labourers?—Well, I am not so good a judge upon that point. You yourself know much more than I do, but Mr. Squarey, who has collected for me a great deal of information on the subject, puts the decline in agricultural wages at 20 or 30 per cent. Mr. Chamberlain quoted the wages of engine fitters, which had increased since 1873. Well, that represents one of the scientific forms of labour. Now I wish to point this out, that there has been a great change of late years in the remuneration of the more scientific forms of labour and the commoner forms of labour; the more scientific forms having a tendency to grow higher and higher in their reward. They represent a very small class in the community. I doubt if they represent 5 per cent. of the labour of the country, but they are frequently quoted as an instance of the rise of wages. On the other hand, the unskilled labour, which is a very large class, has greatly deteriorated of late years. The unskilled labour accumulates in our large towns, and it has been miserably employed and half starved, as far as my experience goes, over the last 10 years.

4962. (*Mr. Barbour.*) Is it the case that the efficiency of these skilled labourers is increased?—Undoubtedly.

4963. But, being more efficient, they would naturally get higher wages?—For instance, they will mind four looms in place of three, and such like things.

4964. (*Mr. Chaplin.*) I would only ask you one further question on the subject of the agricultural wages, and that is, whether your own knowledge of the state of things in some of the eastern counties in England would not bear out exactly what Mr. Squarey has told you that they had fallen about 30 per cent?—I have not a sufficiently minute knowledge of the agricultural districts to speak much from my own knowledge. Of course, I know of the immense influx into the towns of agricultural labourers. They have decreased in number about 400,000 in the last 20 years. Most of those have gone to the towns swelling the class of unskilled labour who are so very ill off.

4965. A question is sometimes asked whether the fall in wages which has occurred, supposing that it has occurred, is not more than compensated by the fall in the price of commodities. What is your opinion upon that point?—Well, I think that certain classes of labour by means of trade combinations have kept their position, and perhaps, on the whole, rather improved it; but I think the bulk of labour has suffered very considerably, not so much from the fall of wages as from the very large amount of short time, and, indeed, from the absence of employment; but I would likewise like to observe that this last year there has been an improvement, and those features are not so prominent now as they were a year ago.

4966. In fact, what I understand you to mean is this, that not only has there been a fall of wages, and not only are a great number of them employed at short time, but that a large number besides are out of employment altogether?—That has been the case the last 10 years. We have had a very large amount of unemployed labour in all our large towns.

4967. You stated that there had been a great fall in the value of agricultural land caused by the fall in prices?—Certainly.

4968. And this was owing, you said, partly to the appreciation of gold and partly to improved means of transport and new markets opened, from which the agricultural interest in England had suffered from an increased competition. What proportion of that fall do you attribute to appreciation, and what proportion to those other causes?—Well, it is mere guess work, but I venture to assume all through this argument that one-half the fall is owing to appreciation and one-half to other causes.

4969. And the effect of this is specially felt by the agricultural interest in the wheat importations from India?—Yes.

4970. Did I understand you rightly to say that the price of wheat depended in great measure upon the value of the rupee?—Certainly.

4971. That if the rupee was worth 2s., wheat would be at 40s.?—The Indian producer could not afford to lay it down here at less than 40s.

4972. And that if, under any circumstances, the rupee fell to the value of 1s., the price of wheat might be lowered to 20s.?—I think so. I think the Indian producer could lay it down here at 20s.

4973. What is the present value of the rupee at this moment?—1s. 4½d.

4974. And the price of wheat, I suppose, averages about 30s.?—Well, it was to within a few weeks ago. There has been a slight rise lately.

4975. You were asked some questions just now as to whether low prices were or were not an evil in themselves. Supposing that agricultural prices, in consequence of the present state of things, were to fall so low as practically to put a large portion of this country—of the eastern counties in particular—out of cultivation altogether, would not that be a great evil to the community at large?—I think it would be a great evil.

4976. How would that affect the agricultural labourers in the counties?—Undoubtedly lower the level of agricultural labour everywhere all over the country, and drive it into the towns.

4977. It would put a large proportion of them out of employment altogether, and drive them into the towns?—Certainly.

4978. Supposing any appreciable portion of the country was put out of cultivation by these means, would not that have a very injurious effect upon the market for the manufacturers of English goods?—There is no doubt that one cause of the depression of trade the last few years has been the great decay of the agricultural market for goods. As Sir James Caird has pointed out, there is 40,000,000l. sterling less spendable income amongst the agricultural classes than there was a few years ago. That means a decrease of 40,000,000l. in what they are able to purchase from the manufacturing classes.

4979. (*Chairman.*) Do you take 40,000,000l. less spending power; is that after providing themselves with the necessaries in the way of food?—I think he meant their entire income was 40,000,000l. sterling less than it was during the prosperous times.

4980. So that part of that would diminish their power of purchasing the necessaries of life. It would not be all taken out of the money that otherwise would be spent on manufactures?—No, it would apply to everything a man purchases.

4981. (*Mr. Chaplin.*) And to remedy this state of things, what I understand you to suggest is the adoption of the bi-metallic system by this country?—In conjunction with other countries.

4982. With how many?—Well, I think it ought to be in conjunction with France, the United States, and Germany. These are the only great countries in the world having metallic money. They virtually mean the world so far as metallic money is concerned.

4983. In your opinion would it be unwise to adopt it without the conjunction of all the three countries?

—I think we could carry it on perfectly well without Germany, but I think it would be desirable to have Germany.

4984. And the general effect of that system, or at all events one effect of that system, if it was adopted, would be in your opinion to a certain extent to raise

prices?—In gold using countries, and still more to prevent a further fall which I think is imminent if nothing can be done to stop it.

4985. And the second effect would be to give a general stability in the relation of the values of the two metals?—Quite so.

Witness withdrew.

Adjourned till Monday.

*Mr. S.
Smith, M.P.*
13 May 1887.

Twenty-first Day.

Monday, May 16th, 1887.

PRESENT :

THE RIGHT HON. LORD HERSCHELL, the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.
MR. J. W. BIRCH.
MR. HENRY CHAPLIN, M.P.
MR. L. COURTNEY, M.P.

SIR T. H. FARRER, BART.
MR. C. W. FREMANTLE, C.B.
MR. W. H. HOULDSWORTH, M.P.

MR. GEO. H. MURRAY, *Secretary*.

Mr. DAVID McLEAN was called and examined.

4986. (*The Chairman.*) You are manager of the Hong Kong and Shanghai Banking Corporation?—Yes.

4987. That is a bank carrying on business in this country and also in China, I believe?—In China, India, and Japan.

4988. So that you have had experience of the financial arrangements carried on through banks relating to the trade between this country and China and this country and India?—Yes.

4989. Both as regards the export trade from this country to those countries and the import trade from those countries to this country?—Yes.

4990. It may be convenient to consider separately the banking transactions in relation to the export trade and the import trade. Will you first explain to the Commission the mode in which merchants exporting to China are in the habit of making their financial arrangements through the banks here?—The merchants apply to the banks for a rate of exchange, and very often they get an offer of that rate for two or three days, sometimes a week.

4991. Will you explain what you mean by a quotation for a rate of exchange?—For instance, the rate on China just now is 3s. for 60 days sight bills. They telegraph out, or they employ a broker to find out, if they can get that rate left with them for two or three days, until they can communicate with China, and if they can sell the goods out there, then they say, "We will take the amount that you have offered us."

4992. When you say the rate for 60 days sight bills, you mean that you will buy a bill on China at 60 days sight at that rate?—Yes.

4993. Is 60 days sight the usual course current between here and China?—Yes.

4994. Then having ascertained from you that you would buy his bill on China at that rate, he then communicates with China to see whether he can dispose of the goods?—Yes.

4995. Having ascertained that he can, he then draws a bill and sells it to you at the quoted rate?—Yes.

4996. So that when he has carried through that transaction any subsequent fall in the price of silver would not affect him so far as the payment of the goods is concerned?—No, it would not affect him.

4997. Now, the bank in that case, unless it could enter into some other transaction, would run a risk?—Yes.

4998. Does the bank cover itself from risk by entering into, what I may call, a reverse transaction?—Yes, the moment we have concluded the operation here we wire out to China that we have done so, after we had got a certain amount done, and then they try to buy bills forward and cover the transaction, so as to make us safe.

4999. That is to say, bills of China on this country?—Yes.

5000. So that if they bought a bill—I am putting a hypothetical case—for exactly the same amount the bank would run no risk?—No risk.

5001. Because whatever fluctuations there were on the one bill there would be on the other, and each would balance the other?—Yes.

5002. Now, as a rule, are banks able to cover themselves on the sum total of their transactions of that description?—Not easily with China. It is very difficult to do so with China. It is much more easy to do so with India.

5003. I should like to keep China and India apart. There are special difficulties in the case of each. In the case of China the opposite currents of trade are not so constant?—No, they are not. The way we do is this, we buy here; they buy on the spot, at the present rate of exchange, and the difference between the two rates is our interest for the time we are lying out of the money between this country and China. That is to say, for instance, we wire out that we have bought to-day at 3s. They immediately buy bills on the spot, we have always plenty of money and are able to do that, to buy bills at once, we do not wait for the due date of that bill before we buy it, therefore we secure our profit.

5004. But what burden is the merchant put to when he sells you his bill?—He runs no risk. The only risk he runs is the risk of the Chinaman not taking delivery of the goods.

5005. He runs no risk from any change in the rate of exchange, but he has to bear a burden in respect of remuneration to you, which he would not have to bear if the silver were not fluctuating in the manner in which it does?—Yes, exactly.

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5006. And what is the amount; can you give us any idea?—It is quite impossible.

5007. Still there would be a substantial burden on the export transactions from this country to China, a certain burden to the merchant resulting from the fluctuation of exchange?—Yes, the present rate is about 7 per cent., that is to say, we buy a bill at 3s., and buying out there to cover gives us an interest of 7 per cent. per annum while we are out of the money.

5008. That is to say, the interest which he would pay would be higher in that case than if he were selling a bill to a bank here drawn upon a gold using country?—Yes.

5009. Now, supposing that you are not, or find you are not, able to cover yourselves, I suppose you would not quote to him a rate of exchange at which you would take his bills?—We would quote a lower rate. There is always a rate that we can buy at in China, there are always bills offering; if we could not get a bill to give us a profit at 3s. we would probably get a bill that would pay us at 2s. 11½d. or 2s. 11d. We would always be able to quote a rate to him.

5010. The result of that would be that he would have to pay more?—Yes.

5011. But we have been told there were times in which a merchant could not sell forward in his transactions with China?—That is very seldom. It happened, I think, about once last year, when the excitement was very keen about the heavy fall in India.

5012. I suppose if he could not sell forward he would have to bear the risk of the fluctuation?—He probably would not do the transaction.

5013. So that in that case it would interfere, actually, with the doing of business?—Yes, quite.

5014. Supposing that a very high rate has to be charged, do you think that that hampers business also?—No, we do not find it so. The business with China, the exports from this country this year, already are larger than the last. We do not find it to interfere. It makes business more difficult, but it does not stop it.

5015. Now to deal next with the import business from China to this country, what is the practice with regard to that business?—The merchant, I presume, has got his limits for, say, tea or silk here, and if can buy there, fixing the rate of exchange at the limits that he gets from his constituent in this country, he buys, and at that rate the bills are sold to the English banks. Say, for instance, he may get an order for silk, say, at 15s. a pound, and he goes to the banks there and finds at what rate of exchange he can sell his bills, and then he buys the silk if he can lay it down at his limits.

5016. He makes the price for the silk at the rate at which he can buy bills?—Exactly, and the same with tea.

5017. And in that case he is subject to no risk of fluctuations?—He is not, if it is a firm order from a merchant here; but, of course, the bulk of the business is done without a firm order from this side. For instance, tea you cannot sell to arrive here.

5018. If he can sell on a firm order from this side, then having ascertained the rate at which he can sell his bills, and having fixed his price in relation to that, he would run no risk from fluctuation?—No.

5019. But if he cannot get a firm order from here, so that he has to buy to sell again here?—Then he takes the risk of this market.

5020. That is, the risk of the fluctuations of the price of silver would fall upon him?—Yes.

5021. Can he cover himself against that with the banks?—No, it is impossible.

5022. And a large amount of the business, you say, is done without firm orders from this country?—In tea. It is impossible to sell tea; quite impossible.

5023. So that as regards the import trade from China to this country, the merchant does run the risk of fluctuations of silver to a very great extent?—Yes.

5024. Do you think that hampers his trade?—No, it does not. It may make it a little more speculative.

5025. The profit that he anticipated may have disappeared in consequence of a fall in the value of silver?—If silver goes down, probably the price here varies with it.

5026. So that it would render the business much more speculative, and so far as people were disinclined to do speculative business, it might hamper it?—Yes.

5027. We will turn now to the export trade from this country to India; will you be good enough to inform the Commission, what is the practice with reference to that trade?—That is very much the same. It is the same as the China trade, only they can do a firm order business much more readily.

5028. Is the usance the same?—Yes; 30 and 60 days.

5029. Well, the merchant selling a bill to the bank, and the bank covering itself in the same way, there are more facilities for the bank covering itself in the trade between this country and India, than between this country and China?—Yes.

5030. Is the interest that the merchant has to pay consequently less?—About one per cent.; a half to one per cent. less per annum.

5031. Now, in the import trade from India to this country, does the merchant there run a risk to the same extent as he does in the import trade from China?—No, he can more readily sell to arrive here; for instance, wheat; he can telegraph home that he has bought wheat there. Probably it is sold before he buys it. As a rule it is sold before he buys it in India.

5032. So that in the case of imports from India to this country, the merchant can protect himself from fluctuations in just the same way as in the case of exports?—Yes.

5033. (*Mr. Birch.*) I think that is specially the case with regard to wheat; you can sell wheat upon sample so much better than you can tea. They would not buy tea to arrive?—No, they must see the tea.

5034. (*The Chairman.*) Then may we take it that, as regards the export trade from this country, the mode of dealing through the banks and the position of the merchants is precisely the same as in the China trade, save that the transactions between India and this country being more constant in both directions than between China and this country, the merchant can carry through the transaction at less burden to himself?—Yes.

5035. But as regards the import trade from China and India respectively, whereas as a rule from China the merchant has to bear the risk of fluctuation, from India he can, as a rule, protect himself in the same way that he can in the export trade?—Yes.

5036. (*Mr. Barbour.*) I suppose that the necessity for fixing exchange beforehand does hamper trade between the two countries?—It does; it makes business a little more difficult.

5037. And has there ever been a panic about the exchange between England and India, or England and China?—There was last year. It began in August, I think, and lasted for two or three months.

5038. And that interferes a good deal with business?—Yes, it did then.

5039. I suppose the panic arises from the fact that people do not know at what rate the exchange is about to settle?—Yes.

5040. If they knew that it would settle at or about a certain price in the course of a short time there would not be that panic?—Certainly.

5041. Do you find it very easy to forecast from time to time what the rate of exchange will be?—I am sorry to say we do not; we just work from hand to mouth.

5042. And I suppose there is a certain difficulty in always getting cover; that is an inconvenience, is it not?—It is much more easy to get cover in India than China.

5043. But it is a difficulty?—Yes.

5044. I saw in one of the financial papers some time

ago that the banks were talking of giving up the system of buying and selling forward; that they thought it was too risky and not satisfactory; is there any truth in that report?—No.

5045. Was the capital of your bank raised in gold or silver?—Silver.

5046. By keeping a portion of your capital in the East you do not suffer any loss from depreciation?—No, all our capital is in the East.

5047. Some of the banks have their capital raised in gold?—Nearly all of them.

5048. They would be rather afraid to keep any considerable amount in the East, in silver?—I should think they would not keep anything.

5049. They reduce the amount that is kept there as much as possible on account of the possible depreciation?—Yes.

5050. And consequently the supplies of silver, say in Calcutta and Bombay, would not stand any considerable extra demand upon them that came suddenly?—No. The banks keep no money there at all.

5051. And has the result of that been that a very slightly increased demand in Calcutta and Bombay raised the rate of interest for the time very seriously?—Yes.

5052. I believe quite recently it was as high as 10 per cent.?—9 per cent. It may have been 10 per cent. outside the bank, but the bank rate was 9 per cent.

5053. And, of course, that is an inconvenience to trade?—When you have dear money it interferes with trade.

5054. And I suppose, if people were confident that the portion of their capital in Calcutta and Bombay would not be depreciated, the supply that would be kept there would be rather larger?—Yes; they would send out money there to invest.

5055. And does the same cause that prevents the banks from keeping a larger portion of their capital in the silver countries prevent people from investing there too?—Yes, it operates in that way.

5056. (*Mr. Birch.*) I gather from what you said that the difficulty is rather in imagination than in reality for the banks, inasmuch as the export and import bills balance themselves pretty well?—Yes.

5057. And that with regard to the difficulties in dealing with China rather than with India, I suppose the Indian Government bills come in to your assistance very materially?—Yes.

5058. That is an element which you have not got in China?—No. Well, we use the Indian bills on account of China also.

5059. But not with the same facility?—No.

5060. Has your bank anything to do with countries using a forced paper currency?—No.

5061. But I suppose you would agree with me that banks dealing with a forced paper currency would have a much greater difficulty than those dealing with a silver-using currency?—Decidedly.

5062. And that, with regard to buying and selling forward, the merchant has his risks, independent of the exchange, because he may buy forward, and when the goods are delivered they may have fallen considerably from the price at which he bought. Supposing I buy wheat for future delivery at 30s., it might be at 26s. before I got delivery of it. It is one of the mercantile risks?—Yes; but it assumes that you very likely have resold it.

5063. Of course it must be very much easier for a bank to deal with a country which has exactly the same standard, because they know that they have only got the expense of moving the metal in case the exchange goes against them?—Yes.

5064. (*Mr. Chaplin.*) I think you said that the wheat in India was often sold here in England before it was actually purchased there?—Yes, very often.

5065. Then how is the operation carried out? Is it bought by corn merchants here in England, and do they send out an offer for a certain quantity of wheat of a certain quality?—Yes, and if the offer is sufficient the wheat is shipped.

5066. Some witnesses have told us that the rate of exchange between India and England acts like an export bounty or bonus upon the wheat sent from India to England. Is that your opinion?—I think the fall in exchange has encouraged the export of wheat from India very largely.

5067. And every additional fall acts as a bonus?—Yes. For instance, in China in the last 10 years many different exports that we never heard of before, such as straw-braid, and camels' wool, are brought in owing to the fall in exchange.

5068. The rupee is worth how much in England at the present moment?—1s. 4 $\frac{3}{4}$ d.

5069. And is it the fact that in India it retains its purchasing power of 2s., or something of that sort?—Yes, I believe it does.

5070. Then is the position of the corn merchant this, that he can with 1s. 4d. of English money buy a rupee, and therefore practically buy 2s. worth of wheat?—No.

5071. (*Mr. Barbour.*) You say the fall in exchange has largely encouraged the export of wheat from India, in your opinion?—Yes.

5072. Do you think if exchange went back to the old rate of 1s. 11d. or 2s., or whatever it might be, that the wheat trade would be seriously affected?—Well, I am not prepared to say; I fancy it would.

5073. And you think that the fall in exchange has stimulated the export of wheat from India?—Yes, there is no doubt about it.

5074. (*Mr. Courtney.*) Do you think that that will be an abiding stimulus?—I think so. I think it will go on increasing.

5075. I mean, supposing the rate of exchange remains at what it is now, that stimulus would continue to be as active as it is now?—Yes, I think more so. I think that as India is opened up with railways it will bring more of the country into cultivation.

5076. But you are there pointing to an increase of the export due not to the change of the rate of exchange, but to the opening up of railways?—I think it has more to do with the exchange. If the exchange had been 2s. I do not think you would have had so much wheat.

5077. The present rate of exchange is 1s. 4d. or 1s. 5d.; supposing it remained at that rate during the next 10 years, do you think that it would operate as an increasing stimulus to export during that 10 years?—I think the stimulus would be exhausted.

5078. You said that the rate of interest paid by a merchant buying a bill on China did not exceed very much, you believed, what was paid to Australia?—About 6 $\frac{1}{2}$, sometimes 7 per cent.; I should think to Australia it is between 5 and 6 per cent.

5079. And the rate to China does exceed the rate to India?—Yes, by about a half per cent.

5080. So that the rate to India and the rate to Australia would be about the same?—It is probable that the rate to Australia would be a little lower. Of course you have no risk.

5081. But an extremely trifling difference?—Yes.

5082. (*Chairman.*) As regards the increased opening up of the country by railways and such works, do you think that has been stimulated or diminished by the low exchange?—No.

5083. Do you think that with the rupee at 1s. 5d., the railway works in India are likely to be more extensive or less extensive, or the same as with the rupee at 1s. 10d.?—I should think they would be able to raise more money for railways if the rate of exchange was low.

5084. Yes, but the money raised for railways is mostly in gold debt in this country, is it not?—In rupee loans as well.

5085. As regards the money raised by gold debt in this country there would be no advantage from the low rate of exchange?—No.

5086. (*Mr. Courtney.*) In respect of China I think I understood you to say that you could always get

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bills there, speaking generally?—Yes, as a rule we can get them.

5087. Against bills here?—Yes; the slackest time in the Chinese business is between February and the beginning of May.

5088. That depends in fact upon the crops?—Yes.

5089. But the trade with China is goods against goods?—Yes.

5090. And they very nearly balance one another?—Yes.

5091. But in the case of India there is a large annual payment made by India to England?—Yes.

5092. And therefore the goods from India must always largely exceed the goods to India?—Yes.

5093. And hence the trade bills one way must be largely in excess of the trade bills the other?—Yes, that is covered by Council bills or silver, or both.

5094. But mainly by Government drafts?—Yes. I think we export 6,000,000*l.* or 7,000,000*l.* a year to them of silver in addition.

5095. And that difference is an element in determining the rate of exchange?—Yes.

5096. (*Sir T. Farrer.*) You said that the effect of the present state of things was to cause very little silver to be kept in India, and that that raised the rate of interest?—By the English banks there.

5097. What sort of enterprises does that affect?—It affects loans on goods. You know, the merchants are not able to raise money so readily.

5098. And that would rather tend to check exports if it had any effect at all?—Yes, but we do not find it does.

5099. And I suppose that that raising of the rate of interest would not apply to raising capital for railways; it would be merely for temporary purposes?—Yes.

5100. (*Mr. Houldsworth.*) In answer to Mr. Courtney you said that you thought the stimulus to the wheat trade, for instance, would be exhausted if exchange was to remain as it is. Could you explain by what means it would be exhausted; how you think the present stimulus would not continue?—The country is opened up as much as it will be now, unless further railways are made to open it up. The ground is occupied.

5101. Then you think that the stimulus at present is due to the effect that is produced by the opening up of India?—Yes.

5102. Is there no stimulus by the difference between gold prices and silver prices?—No doubt that has had a great effect.

5103. But is that a direct effect, or is it only through the opening up of India?—Through the opening up of India, I should say.

5104. What are your opinions of the probability of exchange remaining as it is between the two countries?—I do not think there is any hope of it remaining as it is unless something is done to fix the value of silver.

5105. You think silver will fall?—Yes.

5106. (*Mr. Birch.*) May I ask you why you think silver will fall?—Unless the exports of India increase enormously we are frightened to buy silver.

5107. Do you know anything about the statement that China is going to coin a large amount of silver?—That is a very small business. It is for the province of Canton; not for the Pekin Government.

5108. But China still takes a great quantity of silver, does she not?—Oh, yes; but we export a large quantity of silver also from China. For instance, from the month of February to now, we send a large quantity of silver from China to India.

5109. Could you throw any light upon the circumstance I heard related about a large amount of silver pillar dollars coming from China, that had been formerly current there, and sent to Spain?—Yes, very large.

5110. What replaced them?—Mexican dollars. The Spanish authorities in Manilla have allowed the

Mexican dollar to go in there, and so reduced the rate of exchange in Manilla from 3*s.* 10½*d.* to 3*s.* 3½*d.*

5111. By the introduction of Mexican dollars to take the place of Spanish dollars which formerly circulated at 3*s.* 10½*d.* to 3*s.* 11*d.*?—Yes.

5112. (*Mr. Fremantle.*) Did the pillar dollar circulate at the higher rate because of its scarceness?—No, it was because there was no other dollar allowed in Manilla.

5113. (*Mr. Birch.*) And the Mexican dollar has only now been introduced into Manilla?—Well, in fact, it is smuggled in.

5114. But I am dealing more particularly with China, because you will remember many years ago the Spanish pillar dollar was at a very large premium in China?—These have disappeared altogether.

5115. The ordinary Spanish dollars now have been replaced by Mexican dollars?—Yes.

5116. (*Mr. Fremantle.*) But the reason of that is, is it not, that the pillar dollar has been withdrawn from circulation by the Spanish Government?—Oh, no.

5117. Does the pillar dollar remain in Manilla?—Yes, they will not allow them to be exported; indeed the only place you could export them to was Madrid; now they have stopped that.

5118. (*Sir T. Farrer.*) I should like to ask if you know anything of what is doing with the American trade dollar in China?—Those are all sent back to America.

5119. In consequence of their being remonetized by the recent law?—Yes.

5120. Were there many of them held in China?—Yes, a great many, but they have been gradually finding their way back.

5121. But the remonetizing of them has given them an additional value, I suppose, in America?—Yes.

5122. Consequently, the people who held these dollars when they were remonetized made a good thing of it?—Yes.

5123. Do you know at all what the rise in value was in consequence of the remonetization?—15 per cent.

5124. So that the people who held those dollars made 15 per cent. in consequence of the American law which remonetized them?—Yes.

5125. (*Mr. Birch.*) How long have you been in the banking business with China?—28 years.

5126. Do you find that many more bills now are drawn upon Germany and France and the continent generally than there used to be?—Yes.

5127. Replacing bills that were formerly drawn upon London?—Yes.

5128. To what do you attribute that?—It is cheaper for one thing; the merchant on the continent wants his goods imported direct, and he finds the banks willing to meet him.

5129. Because one of the questions that we have had before us is as to whether there was any particular advantage considered abroad in having credits on England, by reason of people knowing that those bills would be paid in gold, and that if they were drawn on Paris or Germany they could not be certain of what they would be paid in. Do you attach much importance to that?—No.

5130. (*Mr. Barbour.*) Does the Secretary of State for India draw bills to the amount of from 13,000,000*l.* to 16,000,000*l.* sterling a year on India?—It was 13,000,000*l.* last year and 16,000,000*l.* this.

5131. Suppose he stopped drawing for one or two or three years, what would be the effect on the rate of exchange?—Oh, upwards.

5132. It would go up very high?—Yes.

5133. And that would be a great disturbance to trade?—It would.

5134. Have you any idea how high it might go?—It is impossible to say.

5135. It might go to 1*s.* 10*d.*, I suppose?—Yes, very easily.

5136. Do you not think it is possible that some of the silver countries that have over-valued silver might

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take advantage of that to get rid of that silver?—I think they would at the present moment.

5137. And when the Secretary of State began to draw again he would have to draw still more, by reason of the money that he had borrowed in the meantime to meet his debts?—He would.

5138. So that you would have a reverse operation?—Yes.

5139. Have you any idea what exchange would go down to in that case?—It is impossible to say.

5140. That would be a great disturbance to trade?—Yes.

5141. Would it not be better to have a fixed ratio between gold and silver, supposing it to be practicable, than to be subject to these great risks in the future?—I think it would.

5142. What do you think would be the effect of the repeal of the Bland Bill?—It would be very disastrous if that silver was to be forced on our market.

5143. It would largely increase the wheat trade from India?—Yes, it would tend that way.

5144. What would be the effect if, in addition to the repeal of the Bland Bill, the Americans sold the 50,000,000*l.* of silver they have got coined?—They simply could not sell it.

5145. What do you think would be the effect on the rate of exchange if they tried to sell it?—It is impossible to say.

5146. (*Mr. Chaplin.*) I want to clear up the question about the bounty on wheat, which I confess I do not quite understand at present. I understood you to say that a rupee in England is now worth 1*s.* 4*d.*, or a little more?—Yes, 1*s.* 4½*d.*

5147. A sovereign, therefore, will buy 15 rupees?—Yes.

5148. I understand you to say that the rupee in India still retains its purchasing power of nearly 2*s.*?—Well, no, not quite. The rupee, to the native, is a rupee; he does not care anything about exchange, and I suppose a rupee will buy as much rice to-day as it did when the sterling was 2*s.*

5149. Or as much wheat?—Yes, or as much wheat.

5150. It retains its purchasing power for wheat at 2*s.* Then I understand you to say that the wheat in India is bought by the corn merchants here in England?—Yes.

5151. Therefore it comes to this, that a corn merchant with a sovereign can buy 30*s.* worth of wheat; in other words, that for 1*s.* 4*d.* he is able to buy 2*s.* worth of wheat?—No.

5152. Well, will you explain how not?—Assuming that the quarter here is worth 30*s.*, the native knows the price in London as well as you do, and you pay him more rupees probably.

5153. But you told me just now that with a sovereign you could buy 15 rupees, and that the rupee retained its original purchasing power of nearly 2*s.*, as far as wheat was concerned?—Yes.

5154. In other words, that with a sovereign you could buy 30*s.* worth of wheat?—It does not though.

5155. I understand you to admit that the sovereign will buy 15 rupees?—Yes, at the present rate of exchange, about that.

5156. Well then, in India, how much wheat would 15 rupees buy?—It would buy about 20*s.* worth, that is all.

5157. Then how do you reconcile that fact with the statement that the rupee, in India, retains its original purchasing power of nearly 2*s.*?—I say it has

not fallen so much. A native can buy as much rice with his rupee, at the present value of 1*s.* 4½*d.* to the foreigner, as he could do when the exchange was 2*s.*

5158. He can buy, that is to say, nearly 2*s.* worth?—The equivalent of 2*s.*

5159. Either wheat, or rice, or any other commodity, and, I suppose, if a native can buy that, people who are not natives can buy that with the rupee; a corn merchant is not a native, and, according to you, he could buy nearly 2*s.* worth of wheat with a rupee?—But the rupee is not worth 2*s.* here; you fancy the rupee is worth 2*s.*

5160. You assured me that a sovereign could buy 15 rupees?—If you came here with a rupee you cannot sell it at 2*s.*

5161. But out there you said you could?—I said you could buy as much rice as you could when the rupee was at 2*s.*

5162. However, I understand you plainly to admit then, that with the sovereign you can buy 15 rupees at the present time?—Yes, about that.

5163. And those 15 rupees, in India, will buy nearly 30*s.* worth of wheat?

5164. (*Mr. Birch.*) They will buy exactly the same quantity of produce that they did before, and here you would have to give less money for it?—Yes, less gold.

5165. And, as Mr. Chaplin says, the benefit would be in the shape of a bounty; it is a difference in exchange which has the effect?—Yes.

5166. (*Sir T. Farrer.*) Do you mean that you think that the native exporter gets the whole benefit of the difference between the rupee at 2*s.* and the rupee at 1*s.* 6*d.* or 1*s.* 5*d.*?—No, no.

5167. (*Mr. Courtney.*) Mr. Barbour asked you a question as to the convulsion that would happen if the Secretary of State suspended drawing and the convulsion that would happen again if he resumed drawing?—Yes.

5168. How could the Secretary of State suspend drawing?—He could only do it by borrowing money here. The money has to be paid here and he would have to borrow here to pay his way.

5168*a.* Well, what would be the result upon the finances of India of that, I mean on the financial administration of India; I do not mean on the exchange?—I do not think it would benefit them.

5169. Would it merely mean *pro tanto* a declaration of insolvency on the part of India?—No.

5170. Well, it could not pay from year to year, or for some reason or other declined to pay from year to year its annual obligations?—I think the more exports from India we get the natives are better able to pay the taxes. The more we get from India, I think, the better able they are to pay.

5171. (*Mr. Barbour.*) With regard to the question of the Secretary of State suspending drawings; if there were a great war in India do you think the Government could borrow 20,000,000*l.* sterling in India in one year?—No.

5172. It would have to be borrowed at home?—Yes.

5173. And the Secretary of State would suspend his drawings for the time?—Yes.

5174. (*Mr. Birch.*) And, supposing the commodities to be shipped to the same extent, the vacuum in the bills would be filled up with silver?—With silver, if they could get it.

5174*a.* You must pay for what you buy?—Yes.

The witness withdrew.

Mr. HENRY HUCKS GIBBS recalled and examined.

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5175. (*Sir T. Farrer.*) When we left off last time we were approaching one of the most difficult points in our inquiry, and I should like to ask you a preliminary question. You will admit that it is a serious thing to alter the existing standard of value?—Yes,

every legislative action affecting commerce is a very serious thing, whether it has its origin here or elsewhere. The alteration which took place in our standard of value in 1873 was exceedingly serious.

5176. And any such alteration necessarily causes

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changes in methods of business, alterations in the effect of contracts, and in the relative positions of different classes?—You can judge of the importance of the changes which might take place in consequence of another alteration, by considering the changes which have occurred since 1873. I do not think there have been or would be any changes on that score in methods of business.

5177. But the other alterations, at any rate you admit generally, are things not to be undertaken lightly?—Certainly.

5178. Well, the position of London as a great financial centre and clearing house of the world makes it necessary for England to be especially cautious in making such changes?—England should be cautious in making any changes. She has not always acted on that wise maxim. Caution does not necessarily imply refusal to change. I have no doubt myself that England is the financial centre and clearing house of the world; but it is probable that our kinsmen on the other side of the water may have a like belief as to New York. I do not know that there is any evidence that the commercial position of that city has been affected for good or evil by the various changes in the monetary legislation of the United States. I do not think either Berlin or Paris had the same claim to that position; but I wish they had exercised more caution when contemplating the changes of 1873. They did more harm than any change on our part can do. England has surely shown great caution. An important change took place in 1873, to which attention was called as soon as its effects became visible. Part of those effects were considered in the Commons Committee of 1876, then came the Paris Conference of 1878, to which delegates were sent but forbidden to join in any vote on the subject. The Paris Conference of 1881 was attended with much the same result; and now, at last, after 14 years of cautious waiting, this country is happily giving a cautious consideration to the subject, and I must hope not without good results.

5179. At any rate, you admit that the burden of proof lies on those who propose any such alteration?—The burden of proof lies on anyone who proposes any alteration.

5180. Now the evils to which our attention has been directed are twofold; (a) evils arising from fluctuation in exchange on which I need not trouble you further; and (b) the appreciation of gold, an ambiguous expression, and which is perhaps better described as a fall in prices which is said to be causing depression in trade and agriculture?—Yes, those first evils, those that you say you have heard a good deal about, arise from absence of a common measure; and that, together with a fall of prices arising from many causes, has had a malign influence on trade and agriculture. Among these causes is a failure in the supply of gold to keep pace with the demands of one sort or another which have been made upon it. That is a better phrase, it seems to me, than appreciation of gold.

5181. Appreciation of gold is the same thing, is it not, as a general fall in prices; they are synonymous?—Yes, in one sense they are.

5182. An appreciation of gold must mean a general fall in prices. It is not simply a fall in some prices, but a fall *pro tanto* in all prices?—Yes, a fall *pro tanto*. It assumes that a certain depressing effect has been felt by all commodities.

5183. Not only by all commodities, but by everything which is measured by or exchanged against gold?—Yes, I include in commodities everything of that kind excepting securities, which, being promises to pay gold, are of course not affected adversely by the dearness of gold.

5184. (The Chairman.) By all commodities in the like proportion?—*Pro tanto*, of course, by everything. Things may have occurred and may be occurring which would alter the price of any particular commodity; that is to say, all need not be lower in price, of course, than they were before, but they will all be

lower in price than they would have been had gold been plentiful.

5185. (Sir T. Farrer.) What it means is this, that a given quantity of gold buys more goods or other things, or a given quantity of goods buys less gold?—Yes.

5186. It differs from the expression “fall of prices” in assuming the fall to be general?—Yes.

5187. Fall of prices is very often used of only a partial fall?—Yes, it may be so.

5188. Then a fall of price of any article may arise either from increased abundance or diminished cost of production of the article on this one head, or from a diminished supply of gold on the other, or from both?—Certainly.

5189. Is not the effect of the fall absolutely different, according as it proceeds from the one cause or the other?—I do not see that the effect of the fall is so very different. It should be nearly the same; but the operation of a rise in the purchasing power of the precious metals, caused by their scarcity, is more occult than that which is caused by increased abundance of commodities. I have heard it said that in the latter case there is no need to interfere. I should rather say that interference is scarcely possible. If, for example, the earth, here or elsewhere, produces more wheat, we cannot prevent its doing so, and if, whencesoever it comes, it is, on balance, advantageous, we shall not desire to interfere with it.

5190. My words were, “Is not the effect of the fall absolutely different according as it proceeds from the one cause or the other.” If it proceeds from increased abundance of the article sold it is an advantage to the world and there is no need to interfere with it?—That is what I had in my mind when I said that if, whencesoever the additional abundance comes, it is, on balance, an advantage to the world, we never can interfere; at all events, if we can interfere we do not desire to do so. I say “on balance,” because there may be other things which might counteract the advantage.

5191. But I presume the increased abundance of an article that the people desire to consume is an advantage to the world?—It is, but there might be disadvantages attendant upon it.

5192. There may be disadvantages to certain persons who may suffer from competition, but, on the whole, increased abundance of the things which men desire is an advantage to the world, is it not?—At the moment; not of necessity afterwards, because if the effect of its action upon those people who have to produce certain articles, becomes prejudicial to the world it may be ultimately compensated, so to speak, or annulled. What I will answer is this, that for the present, at the present speaking, it is an advantage to the world.

5193. It is an advantage to people that they should get more of the things which they desire at a less cost of human effort and human labour?—Certainly; all other things being equal.

5194. (Mr. Courtney.) Could you illustrate that effect which you think might annul it?—I will suppose, for the sake of argument, that we might come to receive all our supplies from abroad, food, clothing, all the necessaries of life, at a very cheap rate, and that our own land was thrown out of cultivation, our own factories closed. We might be living, as it used to be said was at one time the case with Holland, on our means, every industry of the country being destroyed. I am not using this to argue that such a state of things is probable, but only as an imaginary illustration. That, I think, would be a condition of things that might annul that temporary advantage which it would have no doubt gained by the cheap production of the necessaries of life.

5195. (Sir T. Farrer.) At any rate, for the purpose of our present argument that is not an evil which you would wish to interfere with by any legislation with respect to currency; you would not wish to attempt to prevent increased abundance of the commodities which people desire to consume?—Certainly

not, if that were all. I have always said that the alteration of prices which might ensue is a subsidiary and doubtful accident of the proposed measure.

5196. Let me take two articles; let us say that cotton goods are produced at a much less cost than they were by reason of improvement in manufacture?—Yes; I suppose you mean in a foreign country.

5197. Let us say that wheat is brought to this country at a very much less cost in consequence of the opening up of railways and the cheapening of steam communication?—Yes, which it is, no doubt.

5198. In such a case you will have a very great fall in the price of both these articles?—Yes; supposing that the improvements of which you speak cause an increase of production and consequent competition.

5199. That fall is not a fall with which you would think it necessary to interfere by currency legislation?—Certainly not; no natural causes should be interfered with in any such way.

5200. You and I agree on that; some persons would not. At any rate you would not interfere with that cause by any currency legislation?—No.

5201. Then having got so far, it rests, does it not, with those who propose an alteration, first of all to prove that there has been a general fall in prices?—No, I would hardly say that. It does not rest with anybody to prove that there is a general fall in prices; it suffices to prove that there is a scarcity of gold, because a scarcity or dearth of gold is a fall in prices, therefore the point to be proved for this particular purpose is that there is a scarcity of gold or dearth of gold, which is a fall in prices.

5202. Then you would say if you prove a scarcity of gold you may assume a fall in prices?—I may assume *pro tanto* a fall in prices.

5203. Then we may put out of consideration all the evidence we have had before derived from the index numbers of *The Economist*, and things of that kind. I want to know whether you do not think that that is one of the steps in the argument that those who wish for a change ought to prove?—Of course, you might begin at either end of the staircase. You might show that there was a fall in prices, and then you might inquire as to what had been the causes of that fall, or you might say there was a dearth of gold caused by a deficient supply and an increased demand for gold, and that necessitated a certain fall in prices. What I want to say is that to prove that there is a fall in prices would not at all suffice, for a fall in prices might have arisen, and has arisen, from many other things, whereas if you prove that one point, that there is a deficiency in the supply of gold compared with the demands that have been made upon gold, you prove by that very fact that there is a certain fall in prices, that is that there is a certain adverse effect produced upon prices.

5204. That there is a certain cause which ought to produce a general fall of prices, and probably does?—I would say more than that, that involved of necessity a general fall in prices, even though other circumstances may have occurred to annul the fall and even to raise the price.

5205. May I ask you whether you think that a general fall in prices has been proved as matter of fact?—Yes, I do.

5206. Will you tell me on what evidence you rest that?—Well, I take it on Mr. Giffen's evidence, amongst others. I take the evidence of those who have been most opposed to me in this matter; they almost all agree or have agreed.

5207. You have not seen Mr. Giffen's evidence before this Commission?—No, I have not.

5208. I think he told us that upon a great many things which are measured in gold we have no evidence whatever that would justify us in saying that there has been a fall in prices?—But then, in those very things in which Mr. Giffen would say, and quite rightly say, that there is no fall in prices as compared with the prices that were before, I say there

is and must have been a lessening of the price which would otherwise have been reached.

5209. Must have been is a different thing?—No, excuse me, the expression is just. If gold has been scarce and dear, prices diminish *pro tanto*; but the price of wheat may have diminished at some time or another 35s., and it may be at another time 36s., and yet there would have been an adverse action on the price of wheat.

5210. I only wish to get from you whether you think that it has been proved that there has been an actual fall in prices of all the things which are exchanged against gold, or are measured in gold as a matter of fact? If you will say that you have not exhausted that part of the subject that is quite sufficient for me?—Then, in order to make it clear, let me say a general reduction of prices, if you will understand the difference which I mean to make between that and a fall; I mean that the measure being shortened whereby we measure the prices of commodities, it is inevitable that, to a certain extent, those prices have been reduced. Do you see what I mean?

5211. (*The Chairman.*) You yourself have said that you may begin at either end of the staircase. Sir Thomas Farrer is saying, beginning at that end which has to do with fall of prices, do you think there is such evidence of general diminution of prices (which does not mean necessarily that the price of everything is lower) as to afford evidence from that fact, if there were nothing else, that gold has appreciated?—Yes; it is an extremely difficult question to answer, because even though there should not be on the whole range of prices a fall, which is, I suppose, what Sir Thomas Farrer means, yet I say that the dearth of gold, from something belonging to gold, must inevitably have made a reduction of the price, and if it were not that gold were scarcer in the sense that I mean by scarce, then the general average of prices would have been higher than it is.

5212. (*Mr. Courtney.*) Would you conduct it in this way? Take the range of prices of 1,000 articles. You find, let us assume, for the sake of argument, that in 700 there has been a fall in prices, in 200 prices have been stationary, and in 100 prices have gone up. You examine the causes of production as roughly or as nicely as you can of the different articles, and you find some special reason to explain why the 100 have gone up, you find some other special reason to show that prices would have gone up if there were not a disturbing cause bringing them down. Then, surveying the whole range of 1,000, you come to the conclusion simply from the observation of phenomena that there has been a cause depressing prices generally. Sir Thomas Farrer asks you whether you have made that survey?—Well, I will not say that I have done it with the care and accuracy that a professed statistician does, but I have in some sort made that survey because I have read what other people have written about it, and have taken it on trust from Mr. Giffen and others.

5213. (*Sir T. Farrer.*) Have you read what German and American statisticians have said about wages in Germany and America?—I cannot say that I have.

5214. Have you seen any evidence at all as to the price of land in gold-using countries?—Yes, I have seen and known evidence of the price of the land in this country.

5215. Agricultural land in this country, no doubt; but the price of land generally in this country, and the price of land in America, which is just as important?—No, I cannot answer upon those points, except so far as to say that the only thing of importance to our subject is the chrematistic, as opposed to the apolaustic, use of land; that is to say, land bought for reproductive profit, as against land bought for enjoyment. The purchase of the latter at extravagant prices, if that has anywhere taken place, is no more an indication of general values, than the giving 10,000*l.* for a picture or an opera-box.

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5216. Do you know whether we have any distinct evidence about retail prices?—Yes, I should say we had evidence before us on the Commission on the Depression of Trade on that matter.

5217. Anything that we can rely on as a general result?—How could one tell? It will depend upon the credibility of the various witnesses, and the estimate which you may form of them. We have got their evidence before us. We can study that. My impression, as I said before in this examination, is that wholesale prices have fallen more than retail prices have fallen. Retail prices have very little bearing on the point. See the passage which I have already quoted from Mill, Q. 4531.

5218. Have you ever considered this point, that the evidence we have of wholesale prices is confined to this country, and that the whole object of legislation in this country is to make wholesale prices cheap?—No. I should say that when I was in Germany I heard that, at least as regards agricultural prices, there had been a very great fall in wholesale prices there.

5219. But you do not know that we have no statistics of foreign countries, even to the same extent as we have here?—I do not know whether we have or not, but inasmuch as England is the mart of the world, I think prices may fairly be gauged by the English market.

5220. Then we will go to the other part of the subject. The evil that is alleged and the remedy it is proposed to apply, only relate to a fall of prices if that fall is due to what we may call "scarcity of gold"?—Yes, that part of the evil.

5221. Or "diminished supply of gold," or failure of gold to meet the demands upon it?—Yes, the evil that is alleged, so far as it consists in falling prices, and so far as the fall is due to the failure of gold to meet the demands upon it, would be partly or wholly remedied by the proposed measure.

5222. When, therefore, we are told that wholesale prices in England have fallen, it rests with those who would apply a remedy to show that the fall has arisen from a "scarcity of gold"?—It rests rather with them to show that there is such a scarcity or such a failure. If there is, the reduction is a necessity.

5223. It is therefore important, is it not, to understand how a scarcity of gold affects prices, and especially wholesale prices?—Yes. I have been quite content to accept the authority of all the great writers on economics, who all show that "the value of money is increased in an inverse ratio to its quantity." I do not except Mr. Tooke, for though he set himself to prove the reverse, he very ingeniously refuted his own arguments. Hear what Mr. Torrens says about it in the "Principles and Practical Operation of Sir Robert Peel's Bill of 1844 explained," page 86. "It will be unnecessary to refer to further authorities for the refutation of Mr. Tooke, inasmuch as Mr. Tooke has been completely successful in refuting himself. He has written volumes on the influence of quantity on price, and has shown, by the most elaborate details, that on all the remarkable occasions on which an advance or decline of prices has occurred, the advance or decline was occasioned by a decrease or increase in the quantities of the commodities respecting which the variations occurred. Gold is a commodity governed, as all other commodities are governed, by the law of supply and demand. If the value of all other commodities in relation to gold rises and falls as their quantities diminish or increase, the value of gold in relation to commodities must rise and fall as its quantity is diminished or increased. But gold is the standard of our money. An increase in the quantity, and fall in the value of gold in relation to commodities is the same thing as an increase in the quantity and a fall in the value of the currency in relation to commodities is the same thing as a rise of prices. Mr. Tooke's History of Prices is a magazine of historical facts demonstrative of the

"fallacy of the principle that 'variations in the quantity of the circulating medium do not affect prices.'"

5224. Now, I want to ask you to go back to the prices of wholesale commodities. Is any appreciable amount of gold used in England in ordinary wholesale transactions?—Yes.

5225. Where, and how?—Every transaction is based upon gold, and gold is used in it.

5226. "Based upon gold" is an ambiguous expression; does any gold pass?—In every case gold passes. It does not necessarily involve the actual handling of the metal, but every cheque you draw is a transfer of gold or notes, and every note you give in payment is the actual transference of the ownership of a certain number of grains of gold supposed to be lying in the vaults of the Bank of England from yourself to the person to whom the note has passed, and if it were not absolutely certain that he did acquire the ownership of the gold, commerce would stand on a very different footing from that which it now stands on. For the purposes of this argument, therefore, we may treat notes as identical with gold. I say "supposed to be" in the vaults of the bank, because they are not all there; but they are all obtainable by the bank, and available for the conversion of the notes.

5227. (*The Chairman.*) Might not the amount of cheques which went through the Clearing House tomorrow be doubled, and yet the result, namely the transfer of balances from one banker with the Bank of England to another be precisely the same, and the amount of bullion at the Bank of England be precisely the same?—Certainly.

5228. (*Sir T. Farrer.*) You told me the other day that gold was not a metaphysical thing; that it was a physical thing?—I do not remember saying that, but I daresay I did.

5229. I want to know whether gold is used physically in wholesale transactions; we are now talking of the quantity of that particular metal in the world?—My answer to that is, that every time you sign a cheque you do exactly the same, as regards ownership, as you would do if you had to pay 5*l.*, and instead of paying 5*l.* by cheque, you handed it over to me. You sign that cheque; the gold at the Bank which it represents is yours. When you have passed that cheque to me the gold is mine, but, as Lord Herschell says, the multitude of cheques may be repeated, not infinitely, but may be continually repeated, all day long.

5230. But do you mean to say that if I draw a cheque for 100*l.* upon my banker, and pay it to you, that that is exactly the same thing in its effect upon the demand for gold in the world as if I took 100 gold sovereigns out of my pocket and paid them to you?—Most certainly not, because otherwise all what we have called banking expedients would be of none effect; but we know that they are of very great effect; when however you speak of gold not passing, I say gold does at that moment pass from you to me.

5231. Well, I ask you where it passes?—It seems to me that it does not matter whether it passes from your waistcoat pocket to mine, if that which has become mine in the bank becomes yours in the bank.

5232. But we are now talking of the demand upon this physical substance, gold?—Yes.

5233. Where does that physical substance appear?—In the bank.

5234. And how many of all the cheques that have been drawn in London to-day could be paid by all the gold that is in England?—They could not, of course; that is the very thing I say; they for the most part cancel one another; but each cheque effects a change of ownership not involving practical handling.

5235. (*Mr. Houldsworth.*) If the cheques were immensely increased would it have any effect?—None of any importance. The cheques, for the most part, cancel one another.

5236. Then the same quantity of gold might be the basis for double or 100 times the number of cheques

up to a certain point?—The number of transactions bear no necessary proportion to the gold.

5237. Till credit began to give way and there was a fear that there would not be enough gold to pay?—Yes.

5238. Therefore the quantity of commodities and the number of transactions has nothing to do with the quantity of gold that is required to carry them on?—I do not say that. There you have added in words which alter the meaning very considerably. You say “the quantity of commodities.”

5239. (*Sir T. Farrer.*) Do you consider currency to be, as the books tell us, a “medium of exchange” in wholesale transactions. Is it not rather a “standard of value”?—Currency I understand to be a tool of exchange, entirely distinguished from the abstract idea of a standard.

5240. (*Mr. Courtney.*) What is currency?—The money circulating.

5241. (*Sir T. Farrer.*) Let me drop the word “currency” and use instead the expression “gold,” and let us consider that notes and gold are equivalent in this country. Well, do you consider that gold is a medium of exchange in any wholesale transactions to any and what extent, or is it not rather a standard of value?—It is a standard of value, but of course its actual operation, the way in which it works, is as a medium of exchange, though it is a standard of value. A standard of value must be itself liable to rise or fall in terms of the commodities which it measures. Gold could not work as such a standard or measure if it were all melted into one vast pyramid. It has a dynamical as well as a statical value. It must be capable of passing as a medium of exchange.

5242. But it is practically used as a medium of exchange?—I think we are getting somewhat metaphysical now. I should say it is. My former answers would show that in what way I consider it to be so.

5243. Because it seems to me that this idea of scarcity of gold is largely founded on the opinion that it is used as a medium of exchange, and that in consequence the demand for gold must increase in proportion to the quantity of commodities and the number of transactions, and I want to know whether that is the case?—No. I demur to the number of transactions bearing a proportion to the needed amount of gold; that is the point on which we are all agreed, viz., that banking expedients make the number of transactions almost unimportant; the quantity of commodities does bear a proportion to the gold required. Gold, saving the economy of it by banking expedients, is, I consider, the medium of exchange in this country, and it is also the standard of value over all gold-using countries.

5244. You would agree, then, with this well-known passage out of Hume’s essay on money: “It seems almost self-evident that the prices of everything depend on the proportion between commodities and money. . . . It is the proportion between the circulating money and the commodities in the market which determine prices. . . . Great undertakers, manufacturers, and merchants can deal in nothing but specie.” That is the way in which he goes on to illustrate his position. “Can deal in nothing but specie,”—specie is the basis of it all?—That is what he means, and I agree with it.

5245. Here is another passage I find in Mill. Chap. VII., Book 3: “The supply of money is all money in circulation. The demand for money consists of all the things offered for sale. Every seller of goods is a buyer of money, and the goods he brings with him constitute his demand. . . . As the whole of the goods in the market comprise the demand for money, so the whole of the money constitutes the demand for goods. The money and the goods are seeking each other for the purpose of being exchanged.”—Certainly.

5246. You think that that expresses the truth?—I think it does.

5247. (*The Chairman.*) But as to the quotation

that has been given from Mr. Mill, would you agree that it is accurate if by money is meant merely gold coins?—Oh, no, I do not mean gold coin only; certainly not.

5248. Gold coin or the bullion held by the Bank?—Gold; that is to say, in gold-using countries whatever gold is available for meeting liabilities. Bullion in the Bank is practically coin, both because it is coinable *ad libitum*, and because it is in actual circulation in the form of notes.

5249. (*Mr. Courtney.*) Let me put it to you in this way for the purpose of ascertaining whether we do understand one another. Supposing there is now in the Bank and in private persons’ hands 80,000,000*l.* of gold; do you consider that that is the quantity of coin which is said to be seeking commodities or against which this quantity of commodities is said to be seeking money, or would you add to that 80,000,000*l.*, 15,000,000*l.* more, representing the credit issue of the Bank of England?—I should say, in answer to that, that I do not limit it to those 80,000,000*l.* that you speak of, because there is that sum of 15,000,000*l.* or 16,000,000*l.* which depend for their conversion into gold upon a portion of the gold in the rest of the world, inasmuch as, in order to be able to meet all those notes, provided you had to meet them, it would be necessary to attract gold to this country. You could not do it; nor, as a matter of fact, would you ever need to do it, inasmuch as they never could all be presented, both because of the physical impossibility, and because long before matters came to that point, the Bank, by the sale of securities, would draw in its notes, diminish its liabilities, contract the circulation, and raising the rate of discount as the consequent demand for loans increased, would bring in gold from abroad; and this bringing in shows that the presence of the material substance gold is a real necessity.

5250. Still those 15,000,000*l.* are all the credit issue in addition to the precious metal issue?—Yes; they are a part, you may say, of the expedients, not banking expedients, but currency expedients of the world.

5251. And you include in the volume of money seeking commodities that which rests ultimately upon the credit of this country, as against the world?—It must rest upon gold somewhere. It is not the credit of this country only, although the credit is what you and I have to rely upon, if we hold a certain portion of the notes.

5252. The possibility of getting those 15,000,000*l.* by some means or other, at our will, converted into gold?—Yes.

5253. Well then, would you add any other forms of credit which are circulating among us, besides Bank of England notes, which depend also upon the possibility, in the case of a general liquidation, of being converted ultimately into gold. Supposing you had circulating here Treasury bonds of the Bank of France?—Well, if I am to consider that, which, however, seems to me to be somewhat removed from our question, that would in that case be a part of the currency expedients of the world. One might even add a further thing, one might add the inconvertible currency of other nations. I suppose you might add that, because had they not that inconvertible currency it is probable that they themselves would also need one or other of the precious metals to serve as a medium of exchange and measure of value in their own country, which would be a further drag upon the precious metals existing in the world.

5254. All this extension of the range of the meaning of money seeking commodities and determining the price of commodities, diminishes the importance of the element of gold?—All banking and currency expedients help to make it possible for us to transact that vast business which we now do transact, and which, if we had no such banking expedients, we certainly could not transact with any comfort, upon the basis of the existing quantity of gold. They do not diminish the importance of the element of gold. They obviate the necessity for the

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employment of so great a quantity of specie as would otherwise be needed. The importance of that which is needed is rather increased than diminished.

5255. Well now, might we go a step further, and, in addition to these supposed notes or bonds of a foreign country, might we assume that if the bank here held at its reserve the stocks of a foreign country, which it would convert, if necessary, by sale, in order to satisfy the demands upon itself; supposing there was a run upon it by its creditors, would those stocks of a foreign country represent part of the volume of money seeking commodities?—They would not. There can be no difference between them and any other investment of the bank. The bank would pay for them in notes; if the bank wanted the money it would sell them for notes. I fear I do not follow the sense of your questions. Such investments are no more money than a house would be, if the bank should buy one.

5256. (*The Chairman.*) Part of your position, as I understand, is that in the 10 years preceding 1873 prices rose and were rising up to that time?—Yes, there was a general tendency to rise, I suppose; I will not answer for it.

5257. During those 10 years there was a very large increase, was there not, in the supply of commodities, speaking generally?—There may have been; it is certain that there has been a continuous increase in the facility for bringing commodities to this country; but whether that began to any great extent in the decade preceding 1873, I am not sure.

5258. In fact, there was a great increase generally of production, if you take commodities as a whole?—I should be inclined to doubt it. The Franco-German war took place in that decade, and war both stops production and consumes commodities.

5259. I wanted to take 10 years for a particular purpose, not to go further back; during the 10 years prior to 1873, was there anything like the same increase in the production of gold as there was in the production of commodities generally?—The gold produced in that decade was 30 millions less than in the previous decade; but it was still very large, and I have no evidence that it bore a diminished proportion to the commodities. I should say there was probably a proportionate increase in the gold-using countries; I have not compared them, nor would it be at all easy to compare them.

5260. From 1863 to 1873; I expressly confined my question to the 10 years prior to 1873?—As I have already said, there was a very considerable increase in the production of gold; it went on increasing.

5261–2. There was some increase each year. But suppose the increase in the volume of commodities was greater than the increase in the volume of the currency, if prices depend upon the measure of commodities against the money that is seeking commodities, if there was a much greater increase in the commodities than the money that is seeking commodities, you would expect prices to fall and not rise?—Yes; but there is one certain factor in the comparison which we have omitted; while one at least of those which you have taken into account, the increase of commodities, is uncertain. War raises prices, that war especially, where the French issue of notes threw eighty millions of gold into the gold-using countries. Set those 80,000,000*l.* against the 30,000,000*l.* diminution of which I have spoken (Qu. 5259), and you have 50,000,000*l.* increase of production. But when we speak of the increase of commodities, we are speaking of what I really do not know, what I much doubt any one else knowing with any accuracy. Did commodities in those 10 years increase? Did they increase to that extent?

5263–4. (*Sir T. Farrer.*) May I put the same thing again in this way. I have seen a statement that not one per cent. of the whole commercial transactions of this country are really carried on with gold or notes, that 99 per cent. at least are effected through the medium of banks, cheques, clearing houses, and so on?

—I should think that is quite right—quite true; because the clearing house is a great office for the mutual cancelment of cheques, for reducing gigantic transactions to very small proportions. Such transactions also include large dealings in securities, which have nothing at all to do with the relation of commodities to the measure of value.

5265. It would probably be the case, would it not, that at the time when Hume wrote the passage which I have mentioned, that that would have been far from being the truth. Probably a very large part of the transactions would be actually carried on with gold as a medium of exchange?—Yes.

5266. Consequently, there seems to be in all advanced nations, does there not, a continued sparing of the use of gold, and a continual return to something like a system of barter, with gold as the measure of exchange?—Yes, I think so—I think that is quite true; but I would say, when you make that comparison between Hume's time and ours, that the comparison does not at all militate against what he said, because, although it is a matter of necessity that as time goes on and production increases, and commerce increases, and the transactions increase in magnitude, some such development of currency and banking expedients should take place; yet that which is the basis of all of them is the gold to which they refer in plain terms; exactly in accordance with what Hume says. Dr. Johnson gave a practical answer to your question, writing in Hume's time. "Why, no, Sir. The reason why eggs are sold for 6*d.* a dozen in Scotland, while they cost a penny a piece in London, is not because eggs are plentiful in Scotland, but because pence are scarce there."

5267. What I wished to get at was this, that an increase in the quantity of commodities to be exchanged, or an increase in the number of transactions by which they are exchanged, does not necessitate a proportionate, if any, increase in the quantity of gold used in those transactions?—Yes, I think the increase in the amount of commodities at any moment (the dealings in a certain increased amount of commodities) does require more gold; not perhaps more gold measured by the quantity of commodities, without dealings.

5268. Or by the number of exchanges?—Nor by the number of exchanges. That the clearing houses settle without requiring any great addition to the quantity of gold. That would be necessitated by the increase in the quantity of commodities to a proportionate amount.

5269. (*The Chairman.*) A certain additional percentage probably to what we call the reserve, on which the transactions rest?—Yes, that is what I mean.

5270. (*Sir T. Farrer.*) Is it not a fact that the most advanced commercial nations use by far the smallest proportion of gold in proportion to their dealings?—Certainly, because of the increase in the banking and currency expedients.

5271. Then may it not be the case that gold is ceasing, in advanced countries, to be a medium of exchange, and is coming to be used more and more only as a measure of value. That is the statement of Mr. Jevons; he says, for instance, in his book on "Money," chap. xv., "No sooner have a people fully experienced the usefulness of a good system of money, than they begin to find that they can dispense with it as a medium of exchange and return to a method of traffic closely resembling barter. With barter they begin and with barter they end; but the second form of barter, as we shall see, is very different from the first. . . . Purchases and sales continue to be made in terms of gold and silver coin, but equivalent quantities of goods thus estimated are made to pay for each other. If ownership of gold or silver intervenes at all, it is in the shape of warrants or representative documents with which gold can be procured if desired, but which are seldom used to procure it?"—Mr. Jevons's opinion is deserving of all possible respect; but his words "dispense with it as a medium of exchange" must

not be taken too literally. His description of the course of commerce is most accurate, and shows the effect of all our banking expedients, especially that of the clearing house; but I am sure he would have been the last to deny that the gold basis was a necessity of the system, which rested entirely on a proportionate gold reserve, serving as the material foundation of every exchange. No one will assert that this reserve can be wholly "dispensed with," nor will venture to define how much or how little is needed. Banking economies may be augmented and improved, and the quantum of the gold basis may thus bear to be lessened; but be they as great or as little as they will, it must bear some proportion to the quantity of commodities dealt in, and I must still think that the gold being the foundation of the old structure, every new dealing in commodities is a new dealing in gold.

5272. Requiring an additional amount of gold?—In proportion.

5273. In the world generally?—Yes. As commodities increase so you will need more specie.

5274. I want to know what is the relation between the increased demand for gold and the effect of expedients for saving gold?—Merely this, as it seems to me, that in so far as gold is not economised by banking expedients, the relation between that gold and the increased quantity of commodities will be marked by a change of prices; that is, it is prices that are affected.

5275. Might not wholesale dealings in this country be doubled without any more gold?—Certainly wholesale dealings might be increased, that is if you mean wholesale transactions, not including more commodities, but merely payments, however large, which are all concentrated in the day's work of the clearing house. A payment for a cargo can be cleared as easily as that for a ton; but he who has to pay for a cargo must needs have a larger balance at his bankers than he who has to pay for a ton of the same commodity; the banker must needs have a larger balance with the Bank of England, and the Bank of England a larger reserve of notes, involving the necessity of a proportionately larger stock of gold.

5276. (*Mr. Barbour.*) Would not that tend to increase the liabilities of the banks; would not the amount of bills discounted, and so forth, be very much greater?—Yes, the liabilities would increase, as stated in my last answer; and as to the bills, that is for people to consider how far their wisdom will allow them to take those bills, if there is any fear. There is no doubt that when business is brisk and discounts large the banking department must be the better provided with reserve. But I may observe that there is often an inexact use of the word reserve. You, I think, have in your mind the stock of coin and bullion in the Issue Department. But the reserve means the amount of notes (with a small amount of coin) which we as bankers, acting as any other bank does, keep in our till to meet the demands of our customers. The stock of gold held by our other selves in the Issue Department always equals the total amount of notes held by us, other banks, and the rest of the public, minus 15,750,000*l.* of fiduciary issue.

5277. The reserves of the bank must bear a certain proportion to the transactions, must they not?—The greater the transactions the more is the possibility of bad debts.

5278. You would require a larger reserve?—A larger reserve in proportion to the liabilities that we have.

5279. That is to say, you could not carry on the transactions of England without a greater reserve than would suffice for a bank in Jersey?—No; because the liabilities of your Jersey bank would not be anything to demand such a reserve.

5280. Well then, it comes to this, that, other things being equal, the greater the magnitude of the transactions, the larger must be the reserve; you are always liable to be called upon for gold?—Only in the Issue Department of the Bank of England are we liable to pay our notes in gold. The larger the deposits the

more reserve must the Banking Department keep—reserve of notes. It can pay its liabilities in notes as well as the rest of the world.

5281. That is, the more gold you would need, because the notes represent gold?—If there are more notes there is necessarily a greater reserve of gold in the Issue Department, that is all.

5282. (*Sir T. Farrer.*) You were asked whether wholesale dealings might not be multiplied indefinitely without the need for using a single additional ounce of gold?—If so, the converse must be true, and the stock of gold may be indefinitely diminished without impeding our wholesale dealings. But if that is so, how far may we go? Will you put no limit? Will half a dozen ounces suffice? Why not have an inconvertible currency at once? It is quite true that even that would not impede wholesale dealings; cheques and the clearing house would still exist. But the reduction of the stock of gold in the world, or its increase, would affect prices, however little the mechanism of wholesale dealings might be touched.

5283. I am not at all denying that the quantity of gold has a bearing upon prices, I am only now analysing wholesale dealings, and I want to know how far the increase of wholesale dealings increases the demand on the physical stock of gold in the world, and on that, I think, you stated that it depends on the increase in the quantity of dealings?—Of commodities, not of dealings; that is really a different thing; the increase in the quantity of commodities is one thing, the increase of dealing with the same commodity over and over again in the same day is a different matter.

5284. I am now talking of gold as a medium of exchange, and unless there is dealing, there is no use for gold as medium of exchange?—There must be dealing, of course.

5285. Then if an increase in the quantity of goods to be sold, or of sales, does not create a demand for the use of an increased quantity of gold, can you explain what is the exact connexion between the supply of the standard metals and prices? How does an increased or diminished supply operate?—I have nowhere said that an increase of the quantity of goods to be sold did not create a demand for the use of an increased quantity of gold. I said just the reverse. But I said also that an increase of transactions in the same goods did not involve the necessity for an increase of gold. Under a perfect or good system of banking transactions of great magnitude can be cleared as easily as much smaller ones, at the cost of a little more clerical labour and without the cost of additional gold; but a great addition to the number and mass of commodities to be dealt with, and to the population which has to deal with them would, in fact, alter the proportion between the gold and the commodities, and cause either a demand for more gold, or a greater demand, involving an enhancement of price for the existing gold. For it must be admitted, as I have said, that every cheque causes a transfer of ownership of a certain quantity of sovereigns, and that the same sovereigns cannot be simultaneously transferred from A to B and from C to D. Suppose all commodities in England to change hands at one moment, and to be but 10 in number, represented by 10 equal cheques of 5*l.* each, transferring the ownership of the 50 sovereigns in the bank; it is clear that 10 additional commodities of the same intrinsic value, to be dealt with at the same time, would either need additional cheques for an additional 50 sovereigns, or else the 20 cheques must be for five half sovereigns apiece instead of five whole ones. That is to say, prices would fall. For England read the whole commercial world. For 10 commodities and 50 sovereigns read the whole mass of commodities and the whole mass of gold. Suppose the commodities doubled, and the relation to the mass of gold will be seen to follow the analogy of that above supposed. The actual case is different, because the gold in the bank does not equal the cheques which can be simultaneously drawn and presented for cash payment. The question how, in the way of distribu-

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tion an increased or diminished supply operates has been already answered under Question No. 4675.

5286. (*Chairman.*) When A transfers money to B by cheque, you say he transfers the ownership of so many sovereigns, but the number of sovereigns so transferred exceeds, does it not, the amount that you would suppose to exist? I do not know how you could transfer the ownership in non-existent things?—You do not; but of absent things you may. The physical substance which the uncanceled cheques transfer is partly present and partly absent.

5287. I draw a cheque that transfers from me to him the ownership of five sovereigns, and so in the case of every transaction, but the sovereigns which are thus transferred from one person to another each day in London do not exist, and nothing like that quantity exists?—Surely they do at any given moment; not that the whole quantity is present in England, but just that proportion of it which is affected by the difference between the coin and bullion in stock, and the total issue of Bank of England notes. But if you have received an open cheque for 100*l.* on the Bank of England, you know that nothing can prevent your demanding and receiving first, notes, and then, if you desire them, 100 sovereigns. The same is the case with each and every recipient; as a matter of fact they do not demand notes, because they, or their bankers, owe about as much as they are owed. We may take it that every cheque assumes a balance at the bank on which it is drawn. Against such cheques the banker must keep a sufficient reserve in notes payable at the Bank of England; and those notes, as just now said, are represented by bullion there existing or easily procurable. If it be answered that the reserve of notes kept by the banker supposed to be drawn on is but a small portion of the credits which his customers have with him, which credits are also for the most ultimately secured by the same bullion, so that the cheque in question has a hold on only a small portion of it, it must be replied that however that may be, he would have an indefeasible claim to, and could at pleasure receive, the 100 sovereigns which have been made over to him; and this could only be accomplished in case of pressure by our augmenting the stock of gold in our vaults. But none of this discussion really touches the question of the necessity of our store of bullion, and its effects upon prices. We all know that it is necessary, and we know the immediate and temporary effect upon the rate of discount and upon prices, produced by its diminution or increase from time to time, but that is a very different thing from the ultimate effect of the increase or diminution of the measure of value in the world, as described by Mill. My position is that when a cheque passes from one to the other, sovereigns pass from one as owner to another as owner, though not from hand to hand, the successive owners acquiring the absolute right to demand them. Of course, those same sovereigns can afterwards by another transaction be passed to somebody else. I am now speaking only of the simultaneous action; that is to say, you cannot but transfer sovereigns every time that you give a cheque. They need not be different sovereigns; on the contrary, if it is a transfer from A to B, and then again from B to C, of course they may be called the same sovereigns.

5288. (*Mr. Courtney.*) Suppose at any one moment of time every person who had acquired by transfer and possessed at that moment of time a right to sovereigns said, "I should like to have them in my pocket," what would happen?—Physically, they could not, because the Bank of England could not hold the applicants.

5289. (*Mr. Houldsworth.*) Does it not come to this, that the same ounce of gold supports several times its own transaction?—Certainly, a myriad of times, inasmuch as the cheques cancel one another.

5290. (*Sir T. Farrer*) The cheque that you speak of is a right to five sovereigns?—Yes.

5291. But it is a right which by custom and use is never, or scarcely ever, exercised; is that not so?

—Very little, but rather by necessity of business than by custom.

5292. But in wholesale transactions it is never exercised?—In point of fact, it is seldom exercised in home transactions in the sense of handling the gold, because the movements of bullion from the Bank of England are for the most part international movements rather than internal movements. Bullion has, of course, to be actually moved to Tower Hill sometimes, for coinage purposes, and sometimes to Scotland and Ireland and the provinces.

5293. So that we came to this, that bullion is not used in the wholesale transactions of commerce?—Is not handled, usually, except for export, and for special purposes. Then your cheque is actually paid in sovereigns or bars.

5294. You say it is a right which is seldom exercised; but, I suppose, it might be exercised at any moment, and you must therefore keep a certain reserve in case it should be exercised?—Yes, that is why we should keep a stock of gold, even if the law did not compel us. The Banking Department keeps a reserve, mostly notes, sufficient to meet the demands upon it; the Issue Department has, of course, a reserve of gold sufficient to meet the notes held by the bank and by the rest of the public.

5295. As a matter of fact, except in case of extreme panic, you never do come near the point where people do require the gold?—Even then it would not be that they required the gold instead of notes for their business; they would require it only in consequence of their fears. The hoarding, however, that has occurred in my time has been note-hoarding, not gold hoarding; but the effect of either would be nearly the same.

5296. They are afraid that it may come to the point at which they may be obliged to ask for it?—That is it.

5297. And the amount which you are obliged to keep at the bank depends really, or very much, upon what people think it necessary should be kept there in order to alleviate their fears?—Yes, we have, no doubt, to keep more (if you are referring to our banking reserve), owing to the publication of the accounts of our banking department. The public would know nothing about it if it were not for that. The stock of bullion in the Issue Department is held in accordance with the provisions of the Act of 1844.

5298. Well, now come again to the point how an increased or diminished supply of the precious metals operates. Would it operate on sales through the cash in the hands of the public, or through the gold contained in the bank reserves, or does it only operate indirectly by altering the value of gold considered as a standard of value?—I should say its ultimate operation is through the mass of gold considered as a measure of value. Its immediate operation is through spending power, by which I mean not extravagance only, but all spending, and especially reproductive spending. The stock of gold in the bank is only a cistern. Increase or diminution of production of gold affect it for the moment, but they do not at all govern the level at which it is kept.

5299. Then I would only ask you, if the operation of an increased or diminished supply of gold is indirectly, but only indirectly, felt in wholesale transactions, whether it ought not to be felt more directly in retail transactions and in payment of wages, where gold is really used, should it not, than in wholesale transactions, where it is not used?—No, I should say it ought not. Wages are not raised by means of currency, that is, of cash going about in the hands of the public, but by an increase of the wage fund.

5300. Then you do not think that the increased or the diminished supply of gold operates on prices through the circulating medium in the hands of the public?—It operates by the spending power. The fact of the public wanting more cash at one moment to meet its engagements at a certain time, as in Scotland for example, does not affect wages; wages affect that rather.

5301. But I am speaking now rather of an increased or a diminished supply of the precious metals?—By increase of power of spending, not by the presence of this or that quantity in the hands of the public.

5302. Will that not depend upon circumstances?—Yes.

5303. In Australia the increase of the quantity of gold increased miners' wages, and that was the beginning of the rise of all prices, was it not?—In Australia it increased everything, not wages only; nor did it begin with wages. It began by the man who was wont to earn wages leaving his work and going to find gold, and finding better pay by working for himself than for his quondam master. Then the master found that if he must have his horse groomed he must pay higher wages. I have explained before how it affected the rest of the world. Q. 4675.

5304. But I want to know what would be the effect in this country, suppose you have an increased quantity of gold. Would it affect retail prices directly or only through wholesale prices?—No, only through wholesale prices, I should say.

5305. Where is the gold to be found in England?—In the vaults of the Bank of England it is most in evidence, but there has been said to be 100,000,000*l.* in coin in England. It is doubtful whether there is so much.

5306. That is partly in circulation, and goes to pay retail prices and wages?—Yes.

5307. And you have said that you think that the effect of an increased or a diminished supply of gold would not be felt directly in that portion of it?—I say it would not be felt in that way. Wages do not rise in Europe by the mere fact of gold being found in Australia, but by the gradual increase of spending power. It is probable that the coin in the pockets of the people would be again approaching its normal amount, which is now said to be diminished; but that depends on activity of business.

5308. And more cash at the bankers would not make wages rise?—More cash in that particular deposit would not of itself make them rise.

5309. Therefore it is not to the use of the gold in the hands of the public that we are to look for the effect of an increased or a diminished supply upon prices. The gold that acts upon prices you would rather expect to find in the banking reserves?—No; I have already said that it is not by the mere presence of gold in the hands of the public. It is by their having more at their credit to spend. If they consequently paid more wages, they would, as a further consequence, have more money in circulation.

5310. I want to know whether it is to the whole amount of gold in the bank that we are to look for an effect upon prices; we are now dealing with the quantity of gold, and I want to know whether we are to look to the bank cellars for the effective quantity?—You are looking in vain for some great reservoir which should be permanently filled by a great find of gold, or depleted by the falling off of production. I have explained that the action is one of gradual diffusion. What I mean is this: suppose there are 120,000,000*l.* of gold found in Australia, Africa, or elsewhere; it comes to the Bank of England; that is the natural course. That of itself does not increase wages merely because it is there. It may have a momentary effect upon the rate of discount and so a momentary effect upon prices, but what it will do is to leave something behind it. It either belongs to some person here who has made a speculation in Australian mines, or it is a certain amount of commission which remains from the sale of that commodity, gold, which may have been consigned to him, giving him in either case increased spending power. That is the way in which the thing operates.

5311. And in that way the bringing of silver to the assistance of gold would place a larger amount of standard metal in the bank reserves, and in that way would operate upon business in the way which you have described?—Yes, but that is only a temporary

operation, acting, as I have said, upon the rate of discount. It might be more easy if gold and silver were both of them money here, to withdraw gold or silver from another country, thus giving an additional facility for bringing bullion to this country; but I say it is not the fact that the discovery of the precious metals operates ultimately through the stock of gold in the bank; it operates through the change of proportion between the commodities existing and the bullion existing.

5312. It operates as a standard of value?—As a measure of value.

5313. At any rate, if we are to look for the quantity of gold which is available, it is to the banking reserve that we should look, is it not? If we are to look for any standard or mode of testing the quantity of gold that is available for the purposes of raising prices, we should look to the bank reserve, and not to any other place?—No, I should say not. The gold in the Issue Department of the Bank of England (which is what I suppose you to mean by the bank reserve) is not the thing that regulates or is even an index of the quantity of gold as a measure of commodities. I think the largest amount of gold in the bank was somewhere about 1876, when certainly the production was not much greater.

5314. I want to get to this point; if there has been a physical scarcity of gold, that scarcity ought to be seen somewhere or another; I want to find the actual fact of a scarcity of gold. Where shall we find that; how can we test the quantity of gold?—We can test the quantity of gold simply by knowing how much is produced, and what is the amount of wear and tear.

5315. Then there is no reservoir in the world?—No, certainly not; because the only gold that may be said to be in reservoirs is that which goes back again, so to speak, into the mines, as I have frequently said; that is to say, goes into hoards, or may go into hoards.

5316. Is it available when it is in hoards; does it alter the standard of value when it is in hoards?—It may be said to be put back into the mines, with only this difference, that the mine is one that is extremely easily worked. Just in proportion as it is easily worked, so it must have an effect on prices.

5317. But, for the moment, it has not an effect upon prices?—Not unless it is, as I say, very easily to be had.

5318. We have seen that it can be got at?—Yes.

5319. But in their immediate effect upon a standard of value we might put hoards out of consideration, might we not?—I think we might; some hoards, certainly. Let me instance it by one thing. It is said that the German Government has in Spandau some 12,000,000*l.* sterling. You may call that a hoard if you like, but at the same time, in the event of an outbreak of war, that would cease to be a hoard.

5320. Would you say that that hoard affected gold as a standard of value?—It is extremely difficult to measure; it is the degree of its attainability, and the knowledge of it, which would determine that.

5321. But there are certain commercial reservoirs in which the gold is known to be available, and in which it certainly has a commercial value?—Yes, the gold is not only available but in use.

5322. Have you examined the state of those reservoirs before and after the time of the demonetisation of silver?—Yes.

5323. I think Mr. Soetbeer gives us the total gold reserves of the principal countries of the world. In 1877 it was 144,500,000*l.*, and in 1885, 252,000,000*l.*?—Yes.

5324. Therefore the available reserves of gold in the world had very much increased during that time?—The amount of reserves of gold in banks and elsewhere do not clearly bear upon the question. The visible stocks of gold may have increased, inasmuch as there seems to be a tendency, at least on the Continent, to centralise more and more the gold in the country in the reservoirs of the banks. Here, again, supposing that we issued 1*l.* notes against gold,

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the reserve in our tank, the Issue Department, would be increased, but the total amount of gold in England would be unaffected. The amount of reserves in banks depend, as I have said, on many things besides the quantum of the measure of value. The 12,000,000*l.* which Mr. Pierson says exists in Spandau as a reserve for war purposes is in the nature of a hoard, and probably does not affect the mass of the measure, and consequently, prices. Now, the average stock of gold in the Bank of England in both departments in 1879 was 32,000,000*l.*; in 1880 it was 26,000,000*l.*; in 1881 it was 24,500,000*l.*; in 1882 it was 22,000,000*l.*; in 1883 it was about the same; in 1884 it was 22,000,000*l.*; and in 1885 it was 24,000,000*l.* The fiduciary issue of notes in the whole country has been reduced, or the gold would have been less.

5325. At any rate you will admit this, that taking the whole of the available reserves that we know of, according to the best statisticians, the whole of these reserves which are known to be available for the purposes of commerce and exchange, they are larger considerably now than they were in 1877?—Dr. Soetbeer says so. I cannot say of my own knowledge. I can only tell what the case was in the Bank of England, where they were much larger then than now.

5326. In the Bank of England the reserves are as large as they were?—No, they are not. In 1876 the stock of gold in the Issue Department was very much higher. The average was about 20,000,000*l.* and the highest point 34,206,000*l.*

5327. They were just temporarily, but taking the period before the demonetisation of silver and the present period, the reserves are as large now as they were, are they not?—It was not temporary; the stock of gold in the Issue Department was 25,000,000*l.* in April 1876, and 34,200,000*l.* on September 1879. The highest point in the several successive years, 1878–86 was in round numbers 26, 34, 28, 27, 23, 24, 34, 27, and 22 millions. It is now 23 millions, not differing greatly from the average of the years before demonetisation. The highest points in 1867–75 were 24, 22, 20, 22, 27, 25, 24, 23, and 29 millions respectively.

5328. Well, then, I come to a further question. You protect your gold by raising the rate of interest?—Certainly.

5329. Have you had any greater difficulty in doing this since the fall in silver began than before?—No, there is a difference in the rates which will be successful in getting gold from France, but there is no difficulty at all.

5330. Have you had to raise the rate of interest higher?—No, it is lower, as is always the case in a depressed state of trade. The average of the decade ending 1872 was 4*l.* 2*s.* 10*d.* per cent., and of that ending 1882, 3*l.* 7*s.* 10*d.*

5331. (Mr. Courtney.) How do you get those averages?—I take them from our returns.

5332. What I mean is this, do you take into account the time during which your rate runs?—It is an average rate.

5333. Supposing you had got a 3 per cent. rate of discount for nine months in the year and 4 per cent. for three months in the year, what is the average rate in the year?—I cannot say off hand; I have taken the average.

5334. (Sir T. Farrer.) Since the demonetisation of silver the rate of interest has on the average been lower than it was before?—The rate of interest here has been lower than it was before.

5335. Has the rate of interest been more frequently changed than it was before the demonetisation of silver?—No, the changes in the decade ending 1872 were 103, and in that ending 1882, 90. The rate of interest has, I consider, no practical significance in the question before us. It is, however, remarkable that the changes in 1873 were 24, very much larger than in any year since 1844.

5335*a.* That was the time of the special German demand for gold, was it not?—Yes.

5336. The rate of interest is the weapon with

which different countries “struggle,” as it is said, for gold?—It is one of the weapons, and one to which we constantly resort. It is not at all necessary that rates should be high to protect our reserve. It suffices that they should be higher here than in other gold-using countries, taking into account the normal rate of interest in each.

5337. Then do you find that there has been any greater difficulty in maintaining this reserve, that we have had to pay rather a higher price for it since the demonetisation of silver than before?—No, I have shown that it is less.

5338. So that there has been no difficulty whatever in maintaining the reserve?—No, none at all.

5339. The rate of interest in the event of a scarcity of gold is the price that is paid for the use of gold?—Is the price that is paid not so much for the use of somebody else's capital, as for the use of your own capital earlier than you have a right to have it.

5340. (Chairman.) Is it not that he gives you his gold, he getting the right to receive your gold at a later date?—Of course, that is another description of the same thing.

5341. (Mr. Courtney.) A more accurate one?—Yes, perhaps it is; but the Chairman's phrase is the description of a mere borrowing with no security. “Here is something,” you say, “that is due to me on the 1st of July. Please let me have it before the ‘1st of July,’” the banker does so, and you pay him in accordance with the time.

5342. (Sir T. Farrer.) Whichever is the better description, the rate of interest is the price which you pay for the use of the gold in the meantime?—For the temporary use of the capital.

5343. Well, the price of a thing is generally the measure of its scarcity, is it not?—Yes, but there is the fallacy into which you are falling. You say, rightly, the rate is the price you pay for the use of the gold; and then, premising that the price of a thing is the measure of its scarcity, deduce from the low price of the accommodation the conclusion that the gold *itself* is not scarce, that gold is cheap and not dear. If there were but two ploughs in a district, ploughs would cost the same, and be as scarce and dear, though by reason of the ploughing season being nearly over, and most of the land being turned into pasture, the demand was slack, and the charge for their hire little. You speak of the scarcity of gold, whereas it is not the scarcity of gold that is in question at all in respect of the rate of interest. There may be an abundance of gold, and yet you may have to pay a large price for the accommodation you want. There may be an abundance of gold in the world, but yet to borrow the money wherewith to pay your bills you may have to pay a large price, depending on the demand that there may be all through, depending upon the means that your bankers have to help you over that stile.

5344. (Mr. Birch.) Surely one of the objects of raising the rate is to attract gold?—Certainly, that is what I say.

5345. Yes; but I think you said that you only attracted it before its time. Sometimes the object of the Bank of England in raising the rate is to produce this effect, that securities fall, and money comes to be invested in this country, other people's money from abroad too?—I said nothing about attracting it before its time. I said that in sending in bills for discount, I obtained before its time a sum due to me. What you say is right, but it is quite another thing.

5346. It is attracting the gold?—Yes; that is the action of the Bank of England. I was speaking of what the operation was of obtaining payment of a bill under discount. It is not the *gold* that we buy in discounting our bills; it is the accommodation that we buy, and facts show us, as clearly as possible, that it does not depend upon the amount of the stock or production of gold in the world what the rate of interest is.

5347. Not the amount of the production of gold,

but the amount of gold that there is available to come over here if we want it. Does not raising the rate attract gold?—Certainly; but that may be perfectly the case, although gold may be deficient in England, yet gold in one or the other part of the world may be abundant, and may come here. The rate of interest may be higher here, and, therefore, people will send the gold if they have it in their possession, even though the quantity in the world is small in proportion to the demands on it.

5348. You know we are speaking of gold as a measure of value, that is a comparison between the amount of gold and commodities?—The question has now been turned upon the rate of interest, upon the greater or less demand for the temporary use of the commodity. It is not only I, but every economist has said the same; the rate of interest has nothing whatever to do with the scarcity of the precious metals. It has to do with the scarcity in your pocket when you want to borrow, but it has nothing to do with the scarcity in the world.

5349. (*Sir T. Farrer.*) It is notorious that under many circumstances the rate of interest has absolutely nothing to do with the supply of gold; but it is no less clear that there are certain periods in which you want that particular commodity, gold, and in those times you get it by paying a higher price for the use of it, is that not so?—You speak here of gold as if it was a commodity which you wanted to buy. How much, then, do you give for a hundred sovereigns in such a transaction as that of which you speak? The rate of interest is 2%, but the 40s. is not the price of the 100 sovereigns. You say quite rightly in the same question that it is what you pay for the use of them. It is credit, not gold, that you want. You want to pay your bills, that is all, and you have got no money. It is the Bank, not the merchant, that wants gold to replenish its reserve of notes; and it gets it, not by paying (as you think) a higher price for the use of it, but by charging a higher price for its discounts.

5350. Well now, what are the means which you employ for getting gold when you want it, or keeping gold when you wish to prevent its going away?—We (I mean the Bank of England) are not obliged to lend. By raising the rate we say, in effect, "we will not lend." Somebody may say, "I must have the loan." Then we say, "well, you must pay for it," that is, pay for credit, pay for having some more money put to your credit. Your contention is all the less tenable by you because it is an argument that in borrowing money we buy gold, whereas in former questions you have maintained that even when we sell commodities and do buy gold, no gold passes.

5351. I am asking really for information. What is the effect and operation of your raising the rate of interest in getting gold from foreign countries?—I suppose one may say it is that then the rate of interest is better for them here than it is abroad. That is the ultimate result of it. They send gold because they will be able to dispose of the money more advantageously, but there are manifold steps and lines through which that passes. It is sent here as an exchange operation. That is, gold may be sent without any special intention of investing that gold, or it may be sent with an intention of investing the gold, but from the belief that the gold will be wanted, and from the belief on the part of the sender, the man who operates in bullion, that a good exchange operation can be made by sending it. That is to say, that the bills will be sent to him as a counter-remittance under advantageous circumstances.

5352. But if there was really this scarcity of gold or a difficulty in obtaining it, and if there was, as we have heard stated, a "struggle" for gold, would you not expect that since this demonetisation of silver which is said to have caused the scarcity of gold, you would have had a greater difficulty in getting it, and that you would have had to pay more for it?—Yes, if it were really a purchase of gold; but I repeat that it is no such thing; and I repeat what

I have already said, that the rate of interest depends not upon the quantity of gold in the world but upon the briskness or slackness of business. Business ever since that time has been extremely slack, therefore, as has been always the case in slack times of business, the rate of interest is low. Even if the effect of the scarcity, *i.e.*, its more extended use, in Italy, Germany, and elsewhere, should naturally have been to make the price of the temporary loan of capital greater, this would be counteracted by the slackness of business.

5353. But then I thought you told me that the business was slack because there was a deficiency of gold?—Yes, amongst other causes.

5354. We are talking of appreciation of gold alone now. You told me that the depression in trade is due to a want of gold?—Yes, in part. I should put it, more correctly, to a diminution of the measure of value in the gold-using countries, as compared to the commodities measured.

5355. And then when I point out that there is no want of gold, and that there is an abundance of gold, you say that the abundance of gold is due to depression of trade?—I must reply that you have not pointed out that there is no want of gold, or that there is abundance of gold. You have urged that there is a lack of demand for loans, and a consequent cheapness of accommodation, which is a wholly different thing. Interest will always be low when trade is bad. I say that depression of trade is partly caused by a falling off in the amount of gold in the world; by the failure of gold to meet the demands upon it.

5356. Then when I point out that so far as we can see in any possible quarter there is abundance of gold, and that there is not the least difficulty in maintaining that abundance, you tell me it is due to depression of trade?—But I do not say, and I repeat that you have nowhere shown, that there is an abundance of gold. You say, look at the stocks of gold in the Bank of England and in other countries, and you assume that to be an index, but I deny that that is an index; it is not the least an index of the amount of gold in the world.

5357. Then I ask you where do we find this scarcity?—You find the scarcity in the fact that the needful amount has not been produced, and that there have been greater demands on the commodity.

5358. You find the effect in the fall of prices, but you do not find it in any visible reserves, or in any difficulty in maintaining those reserves?—There is no difficulty in attracting gold, but that gold must come from somewhere else, it must be taken away from somebody else. If at any given time we have a large stock of bullion, it does not follow that other people have a large stock also. You cannot take the stock held by the one bank or the other as an index of the gold in the world. The stock of gold in the Bank of England is really an index of the need of the public for notes. The point is that gold is not being produced in large quantities, and is more in use than it was.

5359. I am not talking about the production now; we are talking about the visible supplies throughout the world?—Well, I say I cannot answer about visible supplies, because I do not think the stocks of bullion held by any bank are a sufficient ground for building any superstructure of that kind, and I very much doubt your finding any one who knows anything about the working of the Bank of England, and who will tell you that they are.

5360. Then you do not think that there is any place in the world in which we may look for the quantity of gold existing, in order to test the allegation that there is a failure in the quantity of it to meet the demand?—How is it possible that there should be anywhere such a permanent reservoir which should be an index of the amount existing in its own and other countries? I look at the returns of the gold that comes in, and I see that there is a failure, there is less produced than there used to be, in proportion to what is needed.

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Mr. H. H. Gibbs. 5361. There is no evidence of there being any great "struggle" for gold between the nations?—I think there is.

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5363. I am glad you mentioned that point. The gold in the Bank of England is thoroughly available for commercial purposes?—Surely.

5364. Except so far as it is required to be kept against notes which are out?—That gold also is thoroughly available, and is in fact continually employed, through notes, for commercial purposes.

5365. Can the gold in the Bank of France or the Bank of Germany be got at in the same way as the gold in the Bank of England?—Not quite with the same ease, because gold is not only a legal tender in this country as it is in those, but is the only legal tender in this country.

5366. With the exception of the gold in Spandau, the gold in Germany is in the banks?—It may be so, but I do not know it.

5367. And it is so in the United States?—I do not know how it may be in the United States, but in France it cannot be absolutely demanded because it is a bimetallic country, and they have a right to give which metal they like.

5368. (*Mr. Fremantle.*) But the United States is also a bimetallic country now?—The United States is, like France, a bimetallic country with a lame standard. I am told that they withhold their gold, which would otherwise flow hither; but I cannot say for certain. I wish to read, as to Sir Thomas Farrer's qualification of what I said about the rate of interest having nothing to do with it, a few lines of what Mill says:—"The rate of interest bears no necessary relation to the quantity or value of money in circulation. The permanent amount of the circulating medium, whether great or small, affects only prices, not the rate of interest. A depreciation of the currency, when it has become an accomplished fact, affects the rate of interest in no manner whatever. It diminishes, indeed, the power of money to buy commodities, but not the power of money to buy money."

5369. (*Mr. Birch.*) If Mill had been alive in 1873 I think he would have thought differently, would he not?—He might have thought differently in many things, but I do not think such speculations on dead men's progress of opinion will really help us.

5370. (*Mr. Courtney.*) You lay stress upon the qualification, "when it has become an accomplished fact"; these are the important words in the statement?—They are not the only important words. I, however, made the very same distinction, because I said all increase or diminution of the currency comes primarily in that way; it is poured into that cistern, gets distributed, and when distributed acts uniformly upon prices.

5371. (*Mr. Birch.*) Under certain circumstances the question of the commercial demand has nothing whatever to do with it. You may remember, in the year 1873, the Bank of England, finding that bills were drawn in France, in Switzerland, and in other parts of the world upon England, recognised that this was the means France was adopting to obtain gold to pay her indemnity to Germany; it had nothing whatever to do with trading operations. To avoid losing too much gold we raised the rate continually; we refused to discount some of these first-class bills; we put the rate at 9 per cent. and that had the result of checking this class of operations, and we held our own afterwards?—I was deputy-governor at the time of which you speak, and I am therefore thoroughly cognisant of the circumstances. I make no question, of course, that there were many financial bills; but when you say they were not commercial bills, you speak in a re-

stricted sense of the word. I speak of the whole commerce of England, whether of goods, produce, securities, finance, or of anything else, and of that commerce these bills certainly formed a part. They must have involved indebtedness, and formed an item in international indebtedness of England.

5372. They were what we call financial bills?—But even these must have been drawn on indebtedness, indebtedness past, present, or future, of A to B. There are plenty of "kites" that rest on nothing and mean nothing when they are issued, but a time comes when they must mean something, and must be paid.

5373. At that time the process was this: they drew bills on England to obtain gold on credit, and had to repay when the bills fell due?—But they must have been drawn upon merchants or traders, and formed part of the commercial transactions of those merchants or traders.

5374. (*Sir T. Farrer.*) You referred very frequently to the falling off in supply. I want to ask you a question or two about that. The question of supply is not one of annual supply, is it?—No.

5375. It is a question of the stock which remains?—Certainly.

5376. Since it is not consumed as other articles are?—Certainly.

5377. I find in Dr. Soetbeer and other authorities that during the period from 1493 to 1850, which was 358 years, there were 660,000,000*l.* of gold produced. I also find that from 1851 to 1885, which was 35 years, or about one-tenth of the previous period, 890,000,000*l.*, that is nearly 900,000,000*l.*, of gold was produced. In other words, during the last 35 years about $1\frac{1}{2}$ of the whole previous supply was produced. Well, now, of the stocks in existence during the earlier period a very considerable portion must have gone, as you say, back in to the mines, in some way or other lost, hoarded or consumed, and much more during that longer period of 358 years than during the shorter period of 35 years?—Yes, if your figures are right.

5378. Consequently, the real proportion of the addition to the world's stock of gold during those last 35 years must have been very considerably more than $1\frac{1}{2}$, probably 200 per cent. The exact amount is, of course, uncertain, but it was an enormous addition. We have thus got some notion of the supply. Now the demand is, first of all, for the use in arts and in hoarding; secondly, for use in currency; and those are the ordinary demands; and, with regard to currency, we have had a long discussion upon expedients to save currency which I will not go into again; then as regards extraordinary demands we have what is so much relied on by those who think that there is a scarcity of gold, viz., the demands made by Germany, the United States, Italy, and other countries, and those are put by the statisticians we have had before us at about 200,000,000*l.* Well now, supposing we treat that 200,000,000*l.* as a wholly new demand, and supposing that we treat it as absolutely absorbed and taken away; and suppose we deduct it from the 890,000,000*l.* added to the stock of gold between 1850 and 1885, it leaves us 690,000,000*l.*, or a good deal more than the whole amount produced in the previous 358 years, to meet the growing ordinary demands of the last 35 years. Now, do you think those figures look like a failure in the stock of gold to meet the demands upon it?—Dr. Soetbeer's calculation is not universally accepted, but we may take it to accord with your figures. They relate to production of the metal; but the computation of the gold money (coin and bullion) existing is more germane to our question. Seyd gives the total at the beginning of 1878 as 830,000,000*l.*, by which time 220,000,000*l.*, or more than one-fourth of the whole, had been set to do new work in Germany and elsewhere. But be the figures of production or of money what they may, my view is this: We may presume that the stock between 1851 and 1873 was, at some time, sufficient for the needs of commerce in the then gold-using countries; and I urge that since

that time the production has been little more than enough to compensate for wear and tear, and to supply the demand for use in the arts, leaving scarcely anything to meet the increase of population and trade, and that as a great additional demand for money purposes has arisen the proportion between the

measure and the things measured has been gravely altered. It may be well to add here an independent calculation of the stock, as well of the precious metals as a whole, as of the quantity in use as money. It is taken from the Journal of the Institute of Bankers, Vol. VII., pt. 3.

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ESTIMATED STOCK OF GOLD AND SILVER IN THE WORLD, being a combination of Sir Hector Hay's estimates of production since 1848, with Mr. E. Seyd's estimates prior to that date.

	£	£	£	£
Prior to 1429. Stock of money (gold and silver) supposed to be in existence in the world in the year 1492, according to Mr. Seyd.			180,000,000	
1493 to 1848. Production of gold and silver during this period according to Mr. Seyd.		Gold. 640,000,000		Silver. 1,200,000,000
Estimated cost of coin, &c. in 1848, including previous stock and allowing for use in manufactures, loss, &c., according to Mr. Seyd.		400,000,000		580,000,000
1849 to 1885. Production of gold and silver during this period, according to Sir H. Hay.	810,000,000		480,000,000	
Less, estimated consumption in manufactures, loss, &c. at the rate of 8,000,000 <i>l.</i> a year of gold and 4,000,000 <i>l.</i> a year of silver.	300,000,000	510,000,000	150,000,000	330,000,000
		910,000,000		910,000,000
Or, gold and silver together - -			1,820,000,000	

This whole argument touches only the question of fall of prices, and leaves untouched that of the destruction of the common measure.

5379. Well, you propose to do what would raise the value of silver to the present holders of that metal by, say, 25 per cent. ?—Yes, I should say it would, measured in gold. For example, supposing I held 1,000 ounces of silver, I should be so much the richer if I sold it then than I should be if I sold it now, and the person who bought it would be just in the same position as myself afterwards; my silver would have got more purchasing power, which would be as available in his hands as it had come to be in mine.

5380. We have heard from a witness that the remonetisation of the trade dollar in America has put 150,000 dollars into the pockets of the holders of silver ?—I do not know anything about that. I should like to see the account made up with interest.

5381. The man who told us said that he himself had done it ?—Even then I should like to see the account, because I should like to see whether he had debited himself with interest all the time he held the trade dollar.

5382. (*Mr. Fremantle.*) He did not hold the trade dollars; he had them in his business in China where they were circulating. As soon as he could get the price for them in America he sent them back there. Was not that the case ?—In any case the question of interest comes in, and the question of the purchasing power of the trade dollars in China, *i.e.*, what they had cost him. Those broad statements of what one has made always require to be scrutinised.

5383. (*Sir T. Farrer.*) Then you would alter existing contracts to whatever extent you alter the value of gold ?—Well, as regards the alteration of existing contracts there is a great deal to be said, I think. In any case where you are altering a positive contract and can show that an absolute loss has been incurred by somebody, a thing that you know well beforehand, of course the State must take continual care not to do harm to one party to the contract, or, if it does do him harm, to make compensation; but even in that case our rulers have not always been so extremely careful upon the subject, because where there have been absolute contracts, the *salus populi*, or what has at the time seemed to be *salus populi*, has induced the State to do things which otherwise, I suppose, they would not have done; but when it is a case such as this is, where the loss or gain in the matter of price, and of increase of the

purchasing power or diminution of the purchasing power of the metals concerned is merely conjectural, when nobody can say what it is and what it is not; then I think one must look with very different eyes upon the supposed alteration of contracts. I said before that in 1797 and in 1816 there were acts done by this country which obviously and clearly did alter contracts, some of them more and some of them less. Every legislative act has a tendency to alter contracts. When free trade was established that undoubtedly must have altered contracts. You must not bring back protection if it is immoral to alter contracts, not only because protection may be unwise and immoral in itself, but because you are altering contracts. You ought not to endeavour to get rid of the bounties on foreign sugar, because you may very considerably alter contracts in this country if you succeed in doing it, and yet every successive Government has done its best to get them abolished. You must not make war either, because that alters contracts extremely, and if you have made war, you have certainly no right to make peace, because the peace will certainly alter contracts. You must not issue a new loan in consols, because that will alter contracts, nor must you reduce the interest on the national debt, because that again must alter contracts considerably. A Chancellor of the Exchequer who proposes to pay off the national debt by so many millions a year alters many contracts in consols; so does he who finds reason to refuse to do so; both act alike immorally, if that argument is good.

5384. Would you say that the establishment of bi-metallism operates to put an end to the advantage which the Indian producer is said to gain by the fall in exchange, and would that, in your opinion, be an injustice to India ?—I wished you to ask me that, because I said a good deal, I think, in my first day's examination upon the effect on the producer in Chili of the depreciated currency, and I argued from that, and I suppose I rightly argued from that, that that same effect in a different degree must be produced in India on the producer on account of his having a depreciated currency. Well now, it has been urged, and not infrequently urged, that you must not make this bi-metallic law, because you will do away with that advantage. I say, then, am I to consider that it is an advantage to India that the producer should gain? If so it is an advantage which he gains simply by the depreciation of the currency, and I do not

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think we will find any economist in this country say that it is an advantage to the country at large to have a depreciated currency. Is it an advantage to Chili?—The Chilians think not. The Chilian producers think it is a great advantage to them. I have been one of them, but the people in Chili themselves do not think so, and I learn since my former evidence that they have passed a law for the prospective resumption of specie payments there. But if it is a good thing, and if it is an advantage to have a depreciated currency in silver, so it is in paper, and so also it must be an advantage to have an inconvertible currency, and if in Chili, then here also; and that I think the objectors will shrink from maintaining.

5385. (*Mr. Birch.*) But how would you separate the producer in Chili from the Chilians. He is a Chili man?—Yes, but he is not the whole country. The question is whether the depreciation of currency is a benefit to the country at large, and I say most certainly it is not; but if it is, let us have an inconvertible currency here. We should very soon ruin the trade of the country, but we should give perhaps some temporary advantage to trade. I say it is not a gain to a country to have a depreciated currency, but it is a gain to individuals at the expense of their neighbours, and the moral of that is that I do not think that we should listen to the argument that it is an unjustifiable thing to do away with the depreciated currency, and incumbent on us to reject a measure which might have that effect.

5386. (*Chairman.*) Are the two cases precisely parallel of a country which has a currency which is of less value in relation to gold and a country which has a depreciated currency in this sense, that it is using paper based it is true upon one or other of the precious metals, but the changes in the value of which paper depend upon the changes in credit of the country very much?—Though the character and estimation of such a currency depends in some degree upon the belief that it will ultimately be redeemed in silver or gold, its value must depend upon the amount of issue; that is to say, over issues will destroy it; the two kinds of currency are not the same, but they move on the same lines, only one is further advanced than the other. Both of them are in different degrees bad remittance to a gold-using country; one is useless, the other of uncertain value.

5387. I mean the evil from a depreciated currency in the ordinary sense, paper currency, we will suppose is very much greater any than evil that may arise merely from a variation in the relation which the currency of a country which uses one of the precious metals bears to another country using another of the precious metals?—There is a great deal of difference, but they are both the same in this, that the stuff that is used for money in the country is either valueless or of less value than in others; it is only a question of degree, a very important question of degree, but still only of degree, because very often in paper currencies, in Chili for example, the difference is not nearly so great as it is in some others. In Peru for instance, the dollar is worth 2*d.*; in Chili it is worth 2*s.*, or a little more than 2*s.*; and I suppose there will be an alteration in the exchange in accordance with the proposal to resume specie payments at some distant but definite time.

5388. (*Mr. Houldsworth.*) Is there not a difference in the action of a decrease in the supply of the precious metals and an increase of demand for them for currency purposes as affecting prices? In your answer 4682 you tell us that an increased supply of gold affects prices by creating more spending power. A decreased supply therefore reduces the spending power. But how does an increased demand for currency purposes reduce the spending power?—I may best answer this question by assuming the opposite supposition. Let all demands for gold for currency purposes cease in all the world except in England, *i.e.*, let gold be demonetised everywhere else. Can it be contended that the 800,000,000*l.* or

900,000,000*l.* which would or might be poured into England would not be collectively a different measure of commodities bought and sold by us in England, from the 100,000,000*l.* or so which we now have? Would not prices necessarily rise? There would not necessarily be additional wealth in our possession, though there might be, but there would certainly be additional gold-spending power. In the case formerly supposed (4682) the spending power obviously arose from greater wealth having been poured out; but that spending power was only the agent for spreading over the world the sum added to the measure. In the case now supposed, the demonetisers of gold would have to sell the metal, getting less and less for it. They would thus lose spending power, and the purchasers of the gold would gain it. But even without that, gold would naturally converge upon England. England would be "overwhelmed" with gold, to use the language of some monometallists. In other words, prices would rise. The course of the opposite case is, perhaps, not so easy to explain, but as it goes exactly on all fours with this, it must lead to exactly the opposite result. If there were no gold in the world but that within the four seas, silver being the money elsewhere, and other nations monetised gold, is it conceivable that our 100,000,000*l.* could serve for the measure of all, without disturbance of price? Spending power would certainly be diminished in the world, for the other countries would sell the silver which was formerly their measure and served them as well as a certain proportion of gold would do, for a much less proportion, and would be heavily the losers. It has been argued that the 100,000,000*l.*, whether in gold or in bars or ornaments, does not disappear; it is still there, and why, therefore, should prices be affected? The above examples show that they must be, and make it probable that the means by which they are affected is the loss of spending power.

5389. It has been said, I think, that as population increases more gold (in a gold-using country) is wanted, and if it is not obtained prices will fall. Can you shortly explain this?—It will be made clearer if we suppose the addition to population to be the adoption of gold by a country not before using it, *e.g.*, let Ireland, having had no gold, take to using it. The quantity of gold is constant, Ireland must buy it with commodities, but England and Scotland have only what they need, and do not want to part with it, and while the Irish would bribe them with a larger amount of commodities, *i.e.*, by reducing prices, they also reduce prices and thus the gold suffices for all. I say "what they need," but it is only needed as a measure and prices being once reduced, the level once found, the smaller quantity serves as well as the larger. Now suppose the addition to be a simple increase of population, and consequently of need for commodities. The same force must act, every additional person must have something wherewith to buy; and if no more gold is to be had wherewith to measure commodities, the existing gold measure must stretch, *i.e.*, prices must fall.

5390. Take the reverse case. Suppose the amount of gold to remain the same, and suppose the population decreased suddenly by one half, would prices rise?—Yes.

5391–95. Why?—The quantity of gold is constant, and is in the hands of the remaining half of the population, and is used by them in the purchase of commodities. You must assume that half the commodities have been destroyed as well as half the population (or else you must allow time to elapse, and cessation of production to reduce commodities to that level). It is evident then that the half population, having the same spending power that the whole population used to have, will bid against one another for commodities, so that prices must rise. It is for them tantamount to a new discovery of gold, and the process shown in my answers to Q. 4675 and 4682 comes in.

5396. (*Mr. Fremantle.*) You said that the supply of gold in 1873 was only sufficient for the wants

of the world. What would have happened, in your opinion, if there had been no gold discoveries in 1850?—I did not mean to say that they were only sufficient, or even to assert their sufficiency. I meant I put that as a supposition, sufficient for the wants of the gold-using world; but if there had been no gold discoveries, what, you ask, would have been the effect? The effect would have been that prices would have gone on, steadily, steadily falling, and wear and tear and loss would have devoured the gold as the population increased, if it did increase.

5397. As there has been so enormous an addition to the stock of gold since 1850, is it not difficult to argue that there is a scarcity of gold in the world?—Unless the population has increased so as to demand more, and unless the uses to which gold has been put are greater than they were before, that is to say, unless there is now a greater amount of commodities,

a much greater amount of commodities which the same foot rule has to measure.

5398. Were there not apprehensions as to the effect of the gold discoveries in 1850?—Certainly.

5399. Was the trade of the world not much less disturbed than had been anticipated?—Very much; because all that happened was the natural production of gold; there was then no disturbance of the par of exchange between countries.

5400. Was there not a very great disturbance in the relative mass of the precious metals in the world?—A very great addition. Yet there was scarcely any effect felt in France, and the price of silver in gold countries scarcely varied. The figures that I put in have a very different bearing from those which Sir Thomas Farrer quoted. What I say is that from 1803 to 1873 572,000,000*l.* of gold and 227,000,000*l.* of silver were produced.

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Witness withdrew.

Adjourned till Friday.

Twenty-second Day.

Friday, May 20th, 1887.

PRESENT:

THE RIGHT HON. LORD HERSCHELL, the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.
MR. J. W. BIRCH.
MR. J. CHAMBERLAIN, M.P.
MR. HENRY CHAPLIN, M.P.

MR. L. COURTNEY, M.P.
SIR THOMAS H. FARRER, BART.
MR. C. W. FREMANTLE, C.B.
MR. W. H. HOULDSWORTH, M.P.

MR. GEO. H. MURRAY, *Secretary*.

Mr. J. SHIELD NICHOLSON recalled and examined.

5401. (*Mr. Barbour*.) You said in your previous evidence that you thought the reason why silver fell so little relatively to gold in the 16th century, notwithstanding the large increase in the production of silver, was because silver was then freely coined in Europe. I believe that at that time ratios between gold and silver for legal tender existed in many countries in Europe. Do you think the existence of these ratios had an influence in preventing any great or rapid alteration in the relative market value of gold and silver?—I think in nearly all countries these legal ratios existed, and that would certainly be the natural effect one would expect from the existence of these ratios; but I have not investigated the subject, and I notice Dr. Soetbeer says that the legal ratio almost always followed the market ratio. I am not able to say myself whether that statement is well founded or not; but the existence of those ratios, I should think, would tend to steady the price in the 16th century.

5402. The monetary unit is generally defined to be a certain weight of gold or silver?—Yes, at present.

5403. But the essential thing in a monetary standard is stability of purchasing power, is it not?—I should think at the present time that is so.

5404. Would it not be so at all times?—At times when money was really a representative of barter, then perhaps the deferred payments were not of so much importance.

5405. Stability of purchasing power would not be of so much importance at those times; but it would be an advantage at all times?—I should imagine that it is a very great advantage at any time, but in modern times it is of the greatest importance.

5406. Of the greatest importance because there are so many deferred payments?—Yes, contracts into which time enters.

5407. Then the essential thing in a monetary standard in the present day being stability of purchasing power, would you say that the adoption of a definite weight of gold or silver as a monetary unit is based on the belief that the purchasing power of the metal chosen will remain fairly stable?—I should think that to a great extent gold and silver may be said to be survivals of the fittest, mainly on the ground that they have been shown to be most stable in the purchasing power.

5408. And the greater and more rapid the fluctuations in the purchasing power of the monetary standard the less perfect would that standard be?—Yes, certainly.

5408*a*. So long as a fixed ratio is maintained between gold and silver, the purchasing power of gold necessarily varies in the same direction and to the same degree as the purchasing power of silver?—It seems to me to follow logically as matter of course from the existence of the fixed ratio.

5409. Before 1873 England had a gold standard, Holland had a silver standard, and France had a bimetallic standard, and during that time the relative value of gold and silver was nearly constant. Would you then say that before 1873 England, Holland, in France, in so far as regards the essential quality of stability of purchasing power, had practically the same standard?—Yes, I should say so, and I was looking up some of the writings of Tooke on the subject, and I found in the volume of the history of prices, published in 1840, that in an argument advanced against bimetalism—it was proposed then also—he states that there was never any difficulty in disposing of any quantity of silver in this country, and practically there were no variations in price, so that practically it seems even in this country at that time silver was regarded as convertible into gold.

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5410. (*Chairman.*) At what date was that?—That was written in the volume published in 1840. The reference is Vol. III., p. 212–214.

5411. (*Mr. Barbour.*) But since gold and silver began to fluctuate materially in relative value, gold and silver countries have not merely had standards differing in name and in the material of the standard but also in the essential quality of stability of purchasing power?—Yes, it seems to me so.

5412. I suppose a country that for the time being has a good monetary standard possesses an advantage as compared with a country which has a less stable standard?—Yes, I should think that must be so.

5413. You said in your previous evidence that if the purchasing power of the standard increased while production was not cheapened in a corresponding degree, the producer suffered while the person who had a mortgage on his industry gained?—Yes.

5414. You also said that if the purchasing power of the standard increased, owing to a reduction in the cost of production of commodities, the mortgagee gained; but the producer was not in a worse condition than before, because though he had to part with more commodities in order to obtain the gold wherewith to pay the mortgagee, he was able to produce the increased amount of commodities by a not greater amount of labour?—Yes, I admitted that as a general proposition.

5415. Do not, however, the latter question and answer assume that the reduction in the cost of production is uniform in the case of all producers of the same commodity, and may it not be the case that the cost of production is reduced for some producers of a commodity, and not for others?—Yes, I think it is necessary to introduce some qualification of that kind.

5416. In the latter case does not the producer for whom the cost of production is not reduced suffer a positive loss while the mortgagee makes a positive gain at his expense?—Yes, it seems to me so.

5417. And if the cost of production of a large number of commodities is reduced, would it not be the case that the prices of another series of commodities might fall in sympathy with them, and the producer of the latter class of commodities would suffer a positive loss owing to the increased purchasing power of the standard?—Yes, I should think that would be a good example of the qualification just noticed.

5418. To take an example of a loss of that nature. The prices of Irish agricultural produce have fallen, owing no doubt, to a large extent, to its having become possible to lay down foreign produce more cheaply in this country; but the fact that agricultural produce, like many other things, has fallen in price, does not give the Irish farmer more produce to sell to meet his rent?—No.

5419. Would you then say that the ideal or perfect standard would appear to be one under which the general purchasing power remained unchanged?—I think if that were practically possible it would be.

5420. I suppose we can never hope to get such a standard in practice?—I do not think it is worth discussing the point at present. Under the present conditions I see no prospect of getting anything like an ideal standard used practically.

5421. But the less the deviation of the standard from stability of purchasing power the better for those who have to use it?—Yes, the nearer the approximation to that stability so much the better. I was referring to the possibility of a tabular standard. I do not know whether you have had that in your mind, because it seems to me that under present conditions, at any rate, it would not be a practical remedy that could be considered.

5422. The alteration in the relative value of gold and silver in the last 14 years is, in round figures, 25 per cent., and there must consequently have been an alteration of 25 per cent. in the relative gold and silver prices of articles bought and sold for gold and silver?—That seems to follow logically.

5423. That is to say, if a commodity is produced

in a gold country and sold in a silver country, the alteration in the relative value of gold and silver must have been accompanied either by a rise of 25 per cent. in the silver price, or by a fall of 25 per cent. in the gold price, or by a rise in the one case and a fall in the other, amounting in the total to 25 per cent.?—It seems to me that there must have been a total change of that kind distributed in some manner.

5424. This change in the relative price may be exaggerated or partly concealed by an alteration in the cost of transport between the two countries, but the change in the relative gold and silver prices connected with an alteration in relative value of gold and silver is necessarily in the direction and to the extent just stated?—Yes, that seems to me always the difficulty that every particular price depends upon a number of causes, and it is quite possible, even if we take a number of relative prices, that the effect due to this currency change might be quite concealed, owing to the influence of other causes, but still it seems to me that this is a perfectly *vera causa*, and that it must operate in the way that you suggest.

5425. I believe you are of opinion that a variation in the relative value of the two standards such as has occurred in recent years would give, for a time at any rate, an advantage to the producer in silver countries, and would specially affect industries in gold and silver countries which produce the same article for sale in the same markets?—It seems to me it would be so unless silver prices rose.

5426. The variation would specially affect industries in the gold and silver countries which produced the same article for sale in the same markets?—Yes.

5427. Is it your opinion that this variation in the relation between the two standards in recent years has been sufficient to relatively stimulate production in the silver countries, and to cause a corresponding depression in gold countries?—As far as I can gather, the prices in silver-using countries have not moved upwards, and therefore it would follow that the gold prices must have moved downwards, of these articles, and so there would be a depression in the gold-using countries from that cause, through the fall in prices.

5428. I suppose this relative stimulus and depression would only be temporary, and must cease if silver ceases to fall relatively to gold?—Yes, so far as that cause is concerned.

5429. If silver continued to fall relatively to gold, the stimulus and depression would continue as long as silver continued to fall?—Of course, silver cannot go on being depreciated for ever, it must come to a stop some time, and then the stimulus and depression would cease.

5430. And if silver rose relatively to gold you would have the opposite effect, a temporary stimulus in gold countries and a temporary depression in silver countries?—Yes, that seems to me to follow.

5431. And what you think to be desirable, I understand, is that all countries should have standards which should not vary relatively to each other in purchasing power?—Yes.

5432. And you think this result would be obtained by preventing fluctuations in the relative value of gold and silver?—Yes, of course it is very difficult to describe in a brief manner the purchasing power of the standard in different countries. Perhaps I should limit myself to saying that I think it would be a good thing if the materials of which the standards of the different countries are composed should not fluctuate in relative value, and in that way you would take away one of the causes of disturbance in the purchasing power of the standards.

5433. That is, you would practically get the same standard?—Practically it would come to that.

5434. The same standard so far as stability of purchasing power is concerned?—So far, but still you will get of course local variations in purchasing power whatever standard were adopted. The same amount of gold and silver would never

command precisely the same amount in two countries one thousand miles apart.

5435. I believe you have made an investigation by a new method into the question of the purchasing power of gold at different times?—Yes, I believe the method is new.

5436. I will try to explain the principle which you have adopted, and I will ask you, if what I say is correct. In order to calculate exactly the variation of the purchasing power of gold in any country between any two dates, it would be necessary to make a complete inventory of the whole wealth of the country at the later of the two dates, and then to value that inventory according to the price prevailing for each article at that date. The next step would be to value the same inventory according to the prices prevailing for each article at the earlier date. The total value of the inventory at the prices of the later date, as compared with the total value at the prices of the earlier date, would give the exact ratio in which the purchasing power of gold had increased or decreased?—Yes, that is, theoretically, the leading idea. I was dissatisfied with the small number of articles taken on which the index members are founded, and I thought, at any rate theoretically, it was possible to give an interpretation to the ordinary definition of the value of gold as its command over things in general. My idea was to give a meaning to this phrase "things in general," and the most general and complete meaning that seemed to me possible was to take the valuation of all the wealth in the country at any particular time, if you could obtain it. Of course, the difficulty of applying that method is to calculate the general mass of wealth in any country at any time.

5437. But as a matter of theory you have seen no reason to doubt the correctness of your method?—No, I think, as a matter of theory, it would be generally admitted to be correct, in fact it is really only interpreting what has been stated in every book on political economy, namely, that the value of money is its command over things in general, not over a few particular things. Perhaps I might explain it better if I were to take it not in such a theoretical manner. I would put it in this way. Suppose you were to make a calculation of the accumulation of wealth in a country, and you found in the course of 10 years that there was a diminution we will say of 1,000,000,000*l.* in the aggregate wealth of the country, applying such a method of calculation as Mr. Giffen has adopted. That change in the value of the national wealth may be due either to a change in the quantity of the different articles, or it may be due to a change in the valuation of these articles; and it would make a great difference, for practical purposes, if it is merely a change in the value. Now if you could allow for the increase or diminution in quantity, as the case might be, then you could calculate precisely how much is due to the difference in your valuation.

5438. (*Chairman.*) I am not quite sure how you allow for the increase or diminution of quantity?—It would be very difficult to estimate accurately the increase and diminution in the quantity of national wealth, and that was the reason, theoretically, for taking the same mass of wealth, that is to the same inventory at any particular time applying two levels of prices, and seeing what is the difference. For instance, I suppose if Mr. Giffen were to make a calculation now of the wealth of the country, that he would not obtain such a high figure, proportionately, as ought to be expected, when we take into account the great growth in the volume of wealth. Well, if that were the result, it could only be that there has been an appreciation of the standard, that you are measuring your wealth in a more valuable standard.

5439. (*Sir T. Farrer.*) I thought that your plan was solely for the purpose of getting at actual prices, not for the purpose of ascertaining whether the cause was the scarcity of the standard on the one

hand, or an increased abundance of the commodities on the other?—Yes, my purpose was simply to measure the change in the value, from whatever cause it may be due.

5440. So that it has nothing to do with the cause in the change of price?—No; and if the method is not clear I think I might make it clear by a simple example, not taking the wealth of a nation, but say the wealth of a farmer. If a farmer calculated that his farming stock at a certain time was worth 1,000*l.*, and that at another time it was worth 2,000*l.*, that might be due either to an increase in the quantity or it might be due merely to a change in prices; then, if he could estimate the increase in quantity, he could estimate how much was due to the change in the purchasing power. If you could apply that to a nation, and get in the roughest manner any idea of an increase in quantity, and yet, at the same time, you do not get a corresponding increase in the nominal value of the total, then you must have had a change in the purchasing power of the standard.

5441. But supposing that his farm, with the same amount of labour, produces twice as much at the later time as in the former time, the change of prices would be obvious; but would you say that that was due to a change in the standard?—This is only a question of measurement. So far as this particular farmer is concerned I think we cannot speak of the standard. The standard applies to the whole of things in general, to the mass of things.

5442. (*Mr. Barbour.*) I understand that you attempted to ascertain the change in the purchasing power of gold, without reference to what the cause of that change may have been?—Yes, without reference to what the cause may have been. It may not be due to scarcity of gold, it may be due to abundance of commodities, efficiency of labour, or anything; but it seems to me, the best scientific meaning of the purchasing power of gold, is to take the total mass of wealth in the country if you can obtain it, and see how much that would come to at one time, and how much it would come to at another. The difference would give you the change in the purchasing power of the standard.

5443. But I understand that you found it impossible either to make a complete inventory or to obtain a complete and accurate statement of prices at either date?—Yes.

5444. And that you have attempted, while conforming, as far as possible to the general principle, to obtain an approximate solution?—Yes, I took the best figures I could; of course we cannot possibly get a complete national inventory. I may mention that I believe, in America, when the census is taken, an attempt is also made to get a complete valuation of the national wealth. Well, if something of that kind were done in this country, if at the time of the census being taken or at any other time, things were compared on the same method, then if you could allow for the quantities—

5445. I will not go into the question of the method you adopted for this purpose, but would like to know what confidence you have in the statistics you employed, and what degree of confidence this Commission may, in your opinion, place in the results you have obtained?—As to the statistics I have employed, they are partly the statistics which are quoted in Porter's *Progress of the Nation*, which is a standard book, and partly statistics collected by Mr. Giffen. I carefully took the statistics of the national wealth which had been compiled by other people, so that there might be no unconscious bias in bringing out any answer, and if those statistics can be relied upon for the purpose for which they are relied upon by Mr. Giffen and Mr. Porter in their investigations, I do not see why they should not be applied also in this case. Of course they are very rough.

5446. What confidence do you place in the results?—I should allow that in these statistics, as is pointed out by those who have compiled them,

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that in these statistics by which you calculate the sum total of national wealth, it is extremely difficult to arrive at anything like an exact conclusion; but if you apply the same method at different times, or get any scientific observer to apply the same method at different times, it seems to me that you can rely upon the general result. As to the question of degree, I would place quite as much confidence in this method and the results obtained by this method as in the method of any kind of index number that I have seen. I have no hesitation in saying that the result obtained from this method is as accurate and as much to be relied upon as the result obtained from the index numbers.

5447. Do you think it is a better system than the system of index numbers?—I think theoretically it is a better system, and I think practically it is as good in its results.

5448. (*Sir T. Farrer.*) Do you include in your inventory of the national wealth, labour, which is one of the things exchanged against gold or rather measured by gold?—As I explained, the comparisons that I have made were comparisons of the national wealth calculated in Porter's *Progress of the Nation*, and also by Mr. Giffen, and in neither of those calculations is labour reckoned, but theoretically, I should include, at any rate, some forms of labour.

5449. (*Mr. Barbour.*) I understand your investigations to show that in the earlier half of the present century there was a very great increase in the purchasing power of gold?—Yes, certainly.

5450. It has generally been held that between 1848 and 1868 there was some decrease in the purchasing power of gold, but I believe the result of your investigation leads you to doubt whether this was the case?—Yes, and I should say that there is a tendency to exaggerate very much the effects of the great gold discoveries in the matter of depreciation. I think, according to Jevons' own calculation, the depreciation was only about 16 per cent., and it seems to me, if you look at increase in the quantity of wealth, that probably there was some slight appreciation of the standard in that period.

5451. And I believe you consider that between 1875 and 1885 there has been a distinct rise in the purchasing power of gold, though probably, so far, it is less than that shown by the fall in the wholesale prices of the chief commodities?—Yes, I think, applying this method, taking the best statistics that I can, that at present the fall in general prices, that is, taking all forms of property, has not been so great as is indicated by the usually accepted index numbers.

5452. The results which you have obtained agree, to a certain extent, with those obtained by the system of index numbers?—The results are in the same direction, only there is a difference in degree. For instance, taking the last example of the great gold discoveries, the results obtained by the index numbers is depreciation, while I should rather put it a check to the appreciation, but still the movement is in the same direction.

5453. The objection to the system of index numbers is that, even if allowance be made for the relative importance of different articles, the articles for which prices are taken represent only one section of the wealth of the country, and the results given by them are liable to be affected by causes which do not influence, or do not influence in an equal degree, the whole of the wealth of the country?—Yes, I think, especially in *The Economist* index numbers, that far too great stress is laid upon raw materials which are subject to special causes.

5454. But judging from the results you have obtained by a different system, it would appear that the system of index numbers does indicate the general direction of the movement of the purchasing power of the standard, though it may fail as an exact measure of the increase or decrease?—Yes, I think the index numbers ought to be considered, and the result is that they do show a change in the purchasing power; and, as I say, over the periods that I have taken, the

difference is only one of degree, the direction of movement is the same.

5455. The total production of gold in the 14 years following 1871 is estimated to have been 316,000,000*l.* sterling?—Yes.

5456. And there were special demands for gold during this time on account of Germany, the United States, and other countries, which would not fall much short of 200,000,000*l.*?—Yes; those are the figures I have seen stated.

5457. And authorities have estimated that the demand during that time for hoarding and ornament in the East, and for industrial purposes in the civilized countries, would be about 180,000,000*l.*?—Yes; I have used those calculations.

5458. And that would give a demand of 380,000,000*l.* as against a total production of 316,000,000*l.* sterling?—Yes.

5459. It is possible that a portion of the demand may have been in some cases counted twice over; first in the 200,000,000*l.*, and secondly in the 180,000,000*l.*?—I am not able to say as to the calculations; I have only taken the calculations as they are usually put.

5460. It seems to me that a portion of the demand may have been counted twice over; but, seeing that these demands are, at any rate, about equal to the total production, I suppose one would naturally expect to get some increase in the purchasing power of gold since 1871; especially when we take into account the constant increase in trade in the volume of commerce, the increase in the use of metals. I believe statisticians who have occupied themselves with such inquiries put the total income of the inhabitants of the British Isles at probably 1,200,000,000*l.* sterling a year?—I believe that is Mr. Giffen's last calculation.

5461. And the total yearly production of gold at the present time is believed to be about 20,000,000*l.* sterling, or considerably less than 2 per cent. of the total yearly income of the inhabitants of these islands?—Yes.

5462. And if we were to take into account the income of the people of France, Germany, and other European countries; of India, Australia, Russia, Japan, China, the states in Central and South America, as well as of Canada and the United States, it would be evident that the value of the total yearly production of gold must represent but a very small per-centage of the total income of the world?—Yes, certainly.

5463. (*Chairman.*) The difference between the per-centage which you would have if the production of gold had gone on at its old rate, and the per-centage which you have now that gold is being produced to the extent that it is at present, would be very slight in relation to the total income?—Oh, yes; hardly appreciable.

5464. (*Mr. Barbour.*) Looking to the fact that the yearly production of gold is relatively so small it would appear that if the people of the countries named should devote even a minute fraction of their yearly income to the purchase of gold for ornament and for hoarding, the demand for this purpose alone might very easily equal the total annual production of gold?—Yes.

5465. I believe you hold that the value or purchasing power of gold, like the value or purchasing power of other things, is determined by the supply of gold and by the demands of all kinds for gold?—I think we ought to summarise the influences of gold on general prices by speaking of the supplies of gold and the demands of all kinds for gold, but at the same time it seems to me that the way in which demand and supply determine the value of gold is not so simple as with other values. If we mean by the value of gold the general level of prices, of course a great many factors operate upon the general level of prices, as for instance the great increase in the amount of commodities.

5466. That is an increase in demand?—Yes. When you abstract all the demands for other purposes than currency, then the general level of prices would

depend upon what is left over, that is on the quantity of money. This is really bringing in demand and supply, but it does not bring them in in the simple way as when applied to a single commodity of an ordinary kind.

5467. (*Chairman.*) By what is left over do you mean for coinage purposes?—Yes; what is left in existence, not speaking of the annual supply.

5568. But do you not include in what is left in existence that which is used in the arts, and what is hoarded?—No, what is really hoarded would be practically like an ornament. My general proposition is that the level of prices all the world over would be so adjusted that the total quantity of money finds employment and that corresponds to the general law of supply and demand as affecting any particular article. You say that the price of any article would be so adjusted that the quantity demanded would be equal to the quantity supplied, and so I should say as regards the money of the world, that the level of prices would be so adjusted at any time that the quantity of money would be just used.

5469. (*Mr. Houldsworth.*) Do you mean to say that, supposing you eliminated the question of any fresh supply, and also eliminated the question of any demand for other purposes than currency, the level of prices would remain the same as far as gold was concerned?—Yes, but there would come in the element of demand for gold for purposes of currency, and you might get a great change in the demand.

5470. If the bulk of the gold remained the same, any demand would only be a transfer from one place to another, would it not?—There might be an increase in the total demand for currency. Suppose for instance, that one of our colonies in the course of a few years got double the number of people, and double the wealth, and so on; then it might require double the amount of gold to circulate its commodities.

5471. Might that not be met by the use of various banking expedients?—Yes, of course that would operate also, but still, taking the world as a whole, I should say that the level of prices would be adjusted so that the total quantity of money would be used, and in that way the level depends upon the quantity of money.

5472. (*Chairman.*) It is conceivable, is it not, that the whole of the transactions in any particular nation, and the whole of the international transactions of the world might be settled without the transfer of any coin at all by a system of set-off?—I suppose it is conceivable by an effort of imagination, but I do not think it is conceivable as practicable, especially if you consider the case of a foreign drain.

5473. (*Mr. Barbour.*) The demands for gold would be of the following nature. There is a demand for gold for use in the arts, for hoarding, for ornament, as a medium of exchange to be actually passed from hand to hand, as a reserve to support credit and business transactions, and so forth?—Yes, those are the principal elements of the demand.

5474. And would you say that when gold once had been used in the arts, hoarded or made into ornaments, it would, for a time at any rate, pass out of the market and cease to be a portion of the effective supply, and would practically have no influence on prices?—Yes, it would have practically no influence on the general level of prices, that is what I meant to say when I said it was the quantity which was left over which determined the level of prices.

5475. Are you aware whether the amount of gold passing from hand to hand in the exchange of commodities has ever been very great?—I have no special information.

5476. It is in respect of this use of gold that the employment of cheques and the resort to clearing houses would effect an economy of gold?—Yes, clearly.

5477. Cheques and clearing houses would effect no economy as regards use in the arts, hoarding, or use

for ornament?—Obviously not, except as regards hoarding.

5478. Could you say whether or not the more extended use of cheques and clearing houses would tend to reduce the reserves?—I should think an extension of banking involves a certain addition to the reserve somewhere.

5479. But you could not give a decided opinion upon that question?—It would depend upon other conditions, the conditions under which the system is established. You could conceive of an increase in the use of cheques and clearing houses, leading to less reserve being required, taking the nation as a whole.

5480. Is it not the case that standard money is not merely a measure of value, but also an equivalent against which commodities, may be, and frequently are, exchanged?—I think that every exchange implies in modern times a reference to some form of money, some standard of money.

5481. You could measure a thousand yards of silk with a yard measure, but you could not buy a thousand yards of silk with a yard measure?—No.

5482. A merchant may sell commodities and be paid by cheque, and he may buy commodities and pay by cheque, and his transactions may be on a very large scale, and yet very little gold may pass through his lands?—Certainly.

5483. But though this is the case, the merchant has got the right to claim actual gold if he likes, when he sells commodities, and he is liable to have to provide gold when he buys, and consequently the reserves which support credit and commerce, must always be of a certain magnitude; you cannot do without reserves?—No, it seems to me that it is impossible practically to think of doing without reserves.

5484. And I suppose those reserves would have to be proportioned to the extent of the business, and to the risk of sudden claims being made for gold, other things being equal?—Yes, other things being the same, especially considering the kinds of claims that may be made, whether the claims are known and the possibility of the claims being suddenly made, and so on.

5485. The possibility of a panic, for instance?—Yes.

5486. So that by no elaboration of the system of cheques, clearing houses, and other similar devices, could you get rid of the necessity of keeping reserves of coin or bullion?—No, it seems to me that it would be impossible to get rid of that. The very essence of convertibility of bank notes, taking the simplest form of credit depends on a certain amount of reserve being held, and then there is also the danger of a foreign drain. Whatever great economies may be made in one country there is always the chance of a foreign drain.

5487. You are no doubt aware that it has been said that as people become wealthy they prefer gold to silver for various purposes; and if you divided the people of any country into two classes, those using silver for ornament or personal wear, and those using gold for the same purposes, it would be found, speaking generally, that the class using gold was, on the whole, the wealthier class?—Certainly.

5488. Are you aware that the import of gold into India for hoarding and ornaments has amounted in recent years to more than 3,000,000*l.* sterling yearly?—I have seen the statement.

5489. And are you aware that the yearly consumption of gold in the arts and manufactures in civilised countries in the present day is estimated as high as 12,500,000*l.* sterling by Dr. Soetbeer?—Yes those are the figures I adopted from him in a paper of my own.

5490. Of course, it is very difficult to make an estimate on this subject, and Dr. Soetbeer's estimate may be too high, but I will quote Dr. Soetbeer's own words to show what he thinks of this estimate. "I have already ventured upon the attempt to make

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"an approximate estimate of the application of the precious metals to industrial purposes in the civilised countries, taking an average for the last few years, of course allowing a large margin for error. I have again brought them forward, because there are applications of the metals which were then, either partly or wholly unknown to me, and which might lead to an alteration of the estimate. However considerable the colossal sum of gold annually applied to ornamental and other industrial purposes may at first sight appear, all doubt of the probable truth of the estimate will disappear when we consider how enormously the demand for gold articles and for manufactured gold goods has arisen, owing to the increase of population and prosperity." Dr. Soetbeer's great reputation would in any case justify consideration of any figures he may put forward, but I should like to know whether it is your opinion that the consumption of gold in this way must be very great?—I think there are very good reasons apart from this calculation. I was referring recently to Mr. Jacob's book on the precious metals, Vol. II., chapter XXIV., and I find that he has made several calculations showing that an enormous quantity of gold was used for the arts during the eighteenth century. He quotes a number of statistics obtained from manufacturers in Birmingham, Paris, and other places. I should think that the demand for other purposes than currency must have increased very greatly since that time, owing to the great increase in the consumption of gold in the arts and manufactures, and even at that time he found it necessary to take account of that element in estimating the amount left over for coinage.

5491. (*Chairman.*) With diminished prices, which would be likely to bring about diminished wealth, would you not expect that demand to diminish?—If prices were to fall to an extremely low level, supposing they became a fraction of what they are at present, then no doubt people would think a good deal before they bought a gold watch.

5492. But if there were a diminution of the incomes of the individuals forming a nation, would not these articles of luxury be amongst the first to be dispensed with, and consequently a diminished demand for them soon come about?—Yes, I think so; but at present, in spite of the fall of prices owing to the increase in the quantity of wealth, there is not any absolute diminution in the nominal income of the world, and so there is the same amount available. I should, however, quite accept as a general principle what you say, that the general fall of prices would so far tend to diminish the demand for gold for the purposes of the arts.

5493. (*Mr. Barbour.*) I have got here a statement showing the yearly value of diamonds and other precious stones imported into the United States for the years from 1867 to 1884. I may mention that the recorded exports are very trifling, and it is stated that there is a considerable amount of smuggling, and the value of the articles smuggled is, of course, not included in the figures. This statement shows that the average annual value for 1867, 1868, and 1869 was \$1,459,666, while for 1882–3–4 the average annual value was no less than \$8,792,704. Do not these figures indicate, firstly, that a very large expenditure is being yearly incurred on articles of value for use as ornament; and secondly, that the amount so spent tends to increase rapidly as a country increases in prosperity?—Yes, I should think that is good analogical evidence that there would be an increased demand for gold for similar purposes.

5494. From the analogy of these figures you would infer that there may have been a large increase in the demand for gold for the purposes of ornament and art?—Yes.

5495. I believe the average yearly production of gold in the first 40 years of the present century is estimated to have been rather less than 2,500,000*l.* sterling?—I think that is the calculation.

5496. And it would follow from the figures that

have been quoted that India is now taking more gold for hoarding and ornament every year than the total yearly production of gold 50 years ago?—Yes.

5497. And it would follow that for use in arts and manufactures the civilised world is now taking perhaps four or five times the total production of 50 years ago?—Yes.

5498. The total production of gold is now, of course, very much greater than it was 50 years ago; but you are no doubt aware that it is not so high as it was in the years immediately following the great gold discoveries, and that in recent years it has perhaps shown a tendency to diminish?—Yes, the figures that I am familiar with show a diminution in the production compared with the years immediately following the gold discoveries.

5499. Well, looking to the figures which I have quoted of the total yearly production of gold 50 years ago, and of the estimated consumption of gold in the present day, it would appear that there is no reason to doubt that during the last 50 years there must have been a very great increase in the consumption of gold for hoarding, for ornament, and for use in the arts?—Yes.

5500. With the limited production of 50 years ago, it would have been simply impossible to have met such a large consumption as we have in the present day?—Yes, it seems so.

5501. And looking to the fact that the value of the total yearly production of gold is now but a trifling percentage of the income of the world, to the rate at which population is increasing, to the still more rapid rate at which wealth is increasing, to the tendency to an increased use of gold which appears to accompany wealth, and to the fact that the production of gold does not continue to increase, is there not reason to fear that the consumption of gold for purposes other than currency, may at no very distant date overtake the production of gold?—That seems to me very probable.

5502. It would therefore appear that what we have to look forward, unless something unforeseen occurs, is a continuous and, perhaps, rather rapid increase in the purchasing power of gold?—That is to say, there would be less and less available for purposes of currency; and assuming, as I stated before, that the quantity of currency is, at any rate, one important factor in determining the level of prices, then we must get a fall in the level of prices, or an increase in the purchasing power of gold.

5503. Dr. Soetbeer, making what he admits is a very conjectural estimate, puts the supply of gold for money and gold reserve in civilised countries at the following figures: For the 10 years from 1851 to 1860, 1,621,000 kilograms; for the 10 years 1861 to 1870, 1,023,000 kilograms; for the 10 years 1871 to 1880, 774,000 kilograms; and for the five years 1881 to 1885, 172,000 kilograms?—Yes.

5504. Under these circumstances does it not appear doubtful whether gold is well suited to be a monetary standard if used alone, and unlinked to silver?—I think there is a great danger of the rapid appreciation of gold if it is used in that way.

5505. And I believe it is only since 1873 that we have had any experience of the use of gold as a monetary standard, unlinked to silver?—Yes; practically.

5506. And do you consider that the results of that experiment have, so far, been satisfactory?—No; I should say most decidedly not.

5507. And do you think that gold is likely to prove a better standard in future than it has done during the last 14 years?—Taking the demands that have been pointed out for gold for purposes other than currency, and the growth of trade and population, it seems inevitable that there should be a constant and rapid fall in prices if gold alone is used for money.

5508. And if people prefer gold for ornament as they get wealthier, the demand for gold would increase more rapidly than the growth of demand for silver?—I am not able, of course, to say as to the comparative

demand, because the improvement in the condition of the working classes and the more equal distribution of wealth might lead to a great demand for silver, silver watches, and the like.

5509. It has been pointed out that the total production of gold between 1493 and 1850 was about 660,000,000*l.*, and that since 1850 the total production has been about 890,000,000*l.*, while special demands within the last 15 years possibly came to 250,000,000*l.* From these facts it is argued that there cannot be a greater scarcity of gold now than there was before 1880. Have you any remarks to make on this point?—The scarcity must be entirely a relative term which depends upon the work which the gold has to do, and one of the most remarkable consequences of the great gold discoveries, it seems to me, was the expansion which took place in trade and commerce, and the consequent increase in the demand for gold. Scarcity must be always relative. As I explained, in answer to another question, there is always sufficient gold to circulate commodities, but there may not be sufficient to keep the level of prices stable.

5510. And it is your opinion that there has not in practice been sufficient in recent years to keep up the level of prices?—Yes.

5511. I wish to call your attention to some facts connected with silver. The estimated production of silver from 1493 to 1850 is 1,470,000,000*l.* sterling, and from 1851 to 1885, 430,000,000*l.* sterling. These figures, compared with the corresponding figures of the production of gold, even after allowing for the extra demand for gold in the last 15 years, would appear to indicate that looking merely to the relative supply of the two metals, silver should have risen since 1850 as compared with gold?—Yes, if you look to supply only, and it was generally anticipated, at the time of the great gold discoveries, that there would be a rise in silver.

5512. And does not the fact that silver has fallen instead of risen point to the conclusion that we must look to the demand rather than to the supply to ascertain the causes of the fluctuation in the relative value of the precious metals?—Yes, I think so.

5513. You have been asked some questions about the economy in the use of the precious metals, by the use of cheques, clearing houses, &c. These economies, assuming them to be of importance, would have much more effect in the civilised countries than in the backward countries?—Yes.

5514. And therefore they would have affected the demand for gold rather than the demand for silver?—Yes.

5515. As the civilised countries now generally use gold, does not this make it still more remarkable that silver should have fallen rather than risen?—Yes; it seems to me so.

5516. And does not the conclusion appear irresistible that the demand for gold from some cause or other has increased much more rapidly than the demand for silver?—Yes; it seems to follow.

5517. I understand you to advocate the use of both gold and silver as legal tender at a fixed ratio, in the first place because in this way we should get a standard under which the effects of fluctuations, either of supply or demand in one or other of the metals, would be moderated?—Yes.

5518. And in the second place because there appears to be a special tendency towards an increase of purchasing power in the case of the gold standard, which it is desirable to limit by the use of silver at a fixed ratio to gold?—Yes, I think that the more stable you can get the standard the better; and that this tendency towards appreciation on the part of gold would be met to some extent by linking it to silver.

5519. And in the third place because all countries would have, in the essential matter of stability of purchasing power, the same standard, and no country would be protected through the currency at the expense of another country?—So far as currency is

concerned they would have the same standard. There would be local variations in the purchasing power.

5520. So far as the general purchasing power of the standard was concerned, they would have the same standard?—So far as general purchasing power is dependent upon the currency, it would be the same.

5521. And in the fourth place because all countries would have international money, the existence of which would facilitate international trade, and in all pecuniary transactions between different countries?—I think one ought to distinguish between international money and what is proposed by a convention of this kind.

5522. The money of one country might not circulate or be a legal tender in another country; but the money of one country could be converted into the money of another country at a constant and well-known ratio?—As regards what is the most important function of money, the stability of purchasing power and the absence of any variations owing to the use of different standards, so far, they would have practically the same money, but the phrase international money might suggest other difficulties.

5523. Do you think that if the old ratio of one to 15½ were adopted, and silver rose to 60½ pence per ounce, there would be any danger of the world being injured by an enormous influx of silver?—So far as I have seen the evidence, I do not think that there would be any danger of a great influx of silver. I may mention that I consulted on this point Professor Geikie, professor of geology in Edinburgh, and he said he did not see any reason to suppose that there would be a great increase in the supplies of silver, from geological reasons, and the idea of the geologists is rather that silver is embedded in hard deep veins, and that it is difficult to get. And then it seems to me also that in spite of a number of calculations which have been made lately to show that silver can be produced for a very small sum, we do not get any great increase in the production. Surely the present price of silver, if it can be produced at 1*s.* 6*d.* an ounce, ought to make the silver mines produce as much as they could sell. The present supply of silver does not seem to me to be at all excessive, and would not lead to anything which could be called an enormous influx of silver.

5524. Have you at all considered the question of the supply of gold from a geological point of view?—Perhaps I may be allowed to read a paper given to me by Professor Geikie—

“The annual output of gold is not likely in my opinion to vary much under the present conditions of exploitation. The rich auriferous gravels, &c. from which gold used to be obtained in such large quantities are practically exhausted over many regions, the chief supplies of that metal coming now from deep mines. Gold has, in fact, to be mined for, as a general rule, in the same way as many other ores; and the experience of recent years has shown that when we take the average yield of all the gold mines of some extensive region, such as the United States of America, the annual output is found to vary but little. Of course so long as any part of the earth's surface remains unexplored, there is always the chance of readily worked auriferous soils &c. being discovered. But from all that is known of the geology of the continents, it seems hardly likely that the early experience of California and Australia will be repeated on a similar scale elsewhere.

“I should expect the output of silver to vary slightly from year to year, just as is the case with other ores; but I see no reason for believing that the production of silver will become relatively greater than it is at present. The average annual yield of gold may increase as fresh mining districts are opened up, and the same may be the case with silver. But over a number of years the relative proportion of the two metals will probably not vary much. At present it would seem as if the yield of gold was decreasing,

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while that of silver was increasing. But similar fluctuations have occurred in the past, and may be expected to repeat themselves in the future."

5525. Do you think that even with bimetallism at the old ratio the world would be much more likely to suffer from the short supply than from the over-supply of the precious metals?—I should think that still the tendency would be, if we restored what was the practical condition of things before 1873, towards appreciation of the double standard that is towards a general fall in prices.

5526. And you think the facts of the period immediately succeeding the great gold discoveries distinctly support that conclusion?—Yes, certainly.

5527. Now I am coming to another point. So far as regards the standards of weight and measure, every country is independent of every other country. Each country fixes its own standard of weight and measure, and no other country can interfere in any way with those standards?—Yes, that is unfortunately the case.

5528. But is that the case as regards the monetary standard?—It seems to me there is no real monetary independence, though there is nominal independence so far as the actual form of the coins and so on is concerned.

5529. But, so far as regards the purchasing power, from time to time, there is no real independence of other countries?—No; because to say that we are really independent would be to say that the prices in this country are not influenced by foreign prices.

5530. And the monetary standard of every country is liable to be affected so far as regards its purchasing power by the monetary legislation of every other country?—Yes, it seems to me that is perfectly plain.

5531. And as a matter of fact the gold standard of England has in this way been affected by the action of France, Germany, and other countries in recent years, and so has the silver standard of India?—Certainly.

5532. Does not this fact point to the conclusion that the question of the monetary standard is pre-eminently one for international agreement, and that no satisfactory solution of a permanent nature is possible without such agreement?—It seems to me to be quite clear, that so far as the essential elements of money are concerned, no nation can be independent of other nations.

5533. You advocate bimetallism because it would preserve a constant ratio between gold and silver. But I presume you would support any measure tending to prevent variations, especially rapid fluctuations in the relative value of the standards of different countries?—Yes; I simply advocate bimetallism as the best practicable remedy that is suggested.

5534. And measures of the nature I have indicated would be beneficial so far as they went, would they not?—Yes.

5535. You consider that no permanent and satisfactory solution of the present difficulties is possible without bimetallism in some form?—I do not myself think that any other remedy is practicable.

5536. (*Mr. Birch.*) In your answer to a question by the Chairman, you referred specially to the 16th century as a period when there were very slight variations between the ratio of gold and silver?—Yes.

5537. In the 17th century, I suppose you will allow, the variations were very considerable?—There was a considerable fall in the value of silver as compared with gold in the 17th century.

5538. Can you tell us to what extent?—I do not know without reference, but I referred on that point to Dr. Soetbeer's materials.

5539. Have you been able to refer to Stebbing's "Gold Coins" as an authority?—No, I have not referred to that.

5540. You do not know that he gives the variation from year to year, and he makes the variations to have been from 10 to 1 to 15 to 1?—I was under

the impression that the ratio at the end of the 16th century was about 12 to 1, but that there was a great change in the ratio in the 17th century.

5541. You stated in reply to Mr. Barbour just now that a country possessing a good stable standard holds a higher position than other countries with a more variable standard?—Yes, so far.

5542. Well, do you not think that the single gold standard in England has been a good stable standard, and very beneficial to us generally?—I cannot see what special benefit we have derived from the single gold standard.

5543. But I think you said, in reply to Mr. Barbour, that with a good stable standard a country holds a higher position than other countries?—Yes; but I do not see that if we had gone on with bimetallism as in France, that there would have been any real difference. I do not think that this country has gained by the mere adoption of the sovereign.

5544. Have you any particular information which enables you to state that there will be less gold available for currency in coming years?—I have only the ordinary quoted statistics.

5545. Have you read Mr. Michel Chevalier's work in which he stated that gold would be shortly so depreciated that the sovereign would only be worth about 10s.?—Yes; I think I remember reading that sometime ago.

5546. Prophets occasionally make serious mistakes in their prophecies as to currency?—As to the prophecies of abundance, they generally seemed to.

5547. Mr. Barbour appeared to mix up the falling off in the production of gold with the demand for Germany. He told us that 200,000,000*l.* were required for Germany and France for coinage purposes, and then that there had been a falling off in the production of gold, and he put them together and seemed to infer that the whole constituted a loss or a reduction of the currency in some way?—The falling off in the supply and the increase in demand.

5548. You do not consider that the 200,000,000*l.* has been hoarded?—Oh, no; not at all; but then to a large extent it would replace silver, and would be abstracted from the currency in some other place to some extent at any rate.

5549. But you say that a great quantity of silver has gone to replace that very gold?—No, I do not say that.

5550. Well, a great quantity of gold has gone from some of the bimetallic countries, and silver has replaced it, especially in Spain, I believe?—I was not aware of that.

5551. You are not aware then of the amount of silver that has been coined during the last few years in Spain?—No, I am not aware of that.

5552. Nor the amount of gold that was held there some 15 years ago?—No, I am not aware of that.

5553-4. (*Mr. Chamberlain.*) In what way do you consider that the people of this country have suffered by the appreciation of gold?—Well, in the first place the capitalists have suffered a loss of profit. I should think in nearly all industries there has been a great loss of profit.

5555. How does that arise?—From the want of an adjustment of the cost of production to the fall in price obtained for their product.

5556. What portion of the cost of production has not followed the fall in the article produced?—Well, I believe in manufacturing districts the wages have not followed.

5557. Therefore the artizan population will have gained, even if the capitalists have lost?—They may have gained so far as that particular cause is concerned, but I should not think that they have gained on the whole; on the contrary.

5558. Well then, if they have gained because their wages have remained nearly the same, while the cost of everything which they purchase has been reduced, in what way have they lost?—In the first place, there is always a tendency on the part of the

capitalist who has lost profit to economise the employment as much as possible.

5559. But has there been any reduction of employment in this country? Is it not the fact that the production of the country is larger now than it was at any previous period?—I am not able to give statistics as to the amount of employment of labour, but at any rate it would seem to me to follow clearly that there would be always an effort on the part of the capitalist to employ less labour and to reduce wages as much as possible.

5560. But if you found, as matter of fact, that the production of the country continually increased, then you would not urge that the artizan class had lost anything to set against the gain to which you had previously referred?—If I found it proved that the artizan class was as regularly employed and at the same nominal wages, and that there had been a fall in the price of their articles of consumption, of course I should allow that the artizan class had benefitted.

5561. (*Chairman.*) It has at least been suggested that the increased production has arisen from improved machinery, with smaller amount of labour; do you know at all how that is?—I cannot speak as to the question of fact.

5562. (*Mr. Chamberlain.*) If there were a smaller employment of labour at the present time than at any previous time, would not that be likely to manifest itself in the returns of pauperism?—Yes, but it seems to me a relative question; and though we may have had no great want of employment, it does not follow if, under a better condition of things, capitalists obtained some profit that labour would not have been better employed and at higher rates.

5563. Permit me, that is a new contention; I asked you what the artizans have lost, and you suggest that they have lost because they have lost employment. I then put it to you that all the figures show that we have more employment now; I understand you to say, *non constat*, that they might have had still more employment if the circumstances had been different?—I am not able to speak of the statistics of employment in the manufacturing districts.

5564. Do you confine your contention to this, that the artizan class have lost, but that probably under altered circumstances they might have gained more?—I am not able to give any answer as to the question of fact owing to the extreme difficulty of getting any reliable labour statistics; but, taking the causes one by one, it seems to me that if the capitalist has lost profit,—and that is generally admitted,—that he at any rate will attempt to reduce wages or to make employment less regular, and that so far the labouring classes will suffer.

5565. It does not follow, does it, that he would attempt to reduce employment. He might attempt to get wages at a lower rate if that were possible, but he would not gain anything by reducing the number of hours, for instance, that his mills worked?—I do not know how much loss a capitalist would submit to before he decided not to employ labour.

5566. You know the common commercial maxim that it is the quantity that pays, and manufacturers endeavour to keep their works fully employed in order that the interest of capital may form as small a proportion of the cost as possible?—Yes, I am quite aware of that.

5567. But after all it is as you say a question of fact, and will you not admit that if it were the fact that there was any large increase in the number of persons out of employment, that must show in the pauperism returns?—Yes, so far, unless that is neutralised by other causes; for instance, there have been great accumulations on the part of the working classes. It is quite possible that they may have been living on their own savings to a large extent.

5568. But this appreciation of gold has been going on for a considerable number of years, 12 years at least; surely in the course of 12 years, if you assume that during that period there has been a great want

of employment it must have told before now on the hoarded earnings of the working classes and upon the returns of pauperism?—But I do not think I said, I did not mean to say, that there had been actually a want of employment. I said there was always that tendency on the part of the capitalist to reduce employment, and that aggregate wages were not so good as they otherwise would be.

5569. Well, I put it to you if there has as matter of fact been any considerable diminution of employment; and if there has been no considerable fall in wages while at the same time the prices of all commodities have been reduced, surely the condition of the artizan has been improved?—Yes, that is quite possible.

5570. Well then, in that case, besides the capitalist, whom do you suppose to have been injured in any way by the appreciation of gold?—But is there any objection to my putting in the qualification that I think the condition of the working classes would have been much better if it had not been for this depression. If we take the condition of the labouring classes 12 years ago, and compare it with what it is now, we ought to expect in the natural course of things great progress, and not only mere stability. The period has been one of very great prosperity. There has been no great war, nor any great political disturbance. There have been enormous improvements of all kinds, and a great increase in the efficiency of labour and capital, and we ought to expect a constant increase in the prosperity of the working classes.

5571. Can you say that there has not been such constant increase in the prosperity of the working classes?—All I meant to say is that the improvement in their condition, and I am alluding only to the manufacturing districts, is not so great as it would have been if the capitalist had at the same time been earning profits.

5572. How do you prove that statement?—Well, I argue from general principles.

5573. During the whole of that time, the deposits in the savings banks have very largely increased; that is generally assumed to be an indication of the prosperity of the working classes, is it not?—The point I wished to insist upon is this general principle, that if the capitalists are also gaining profits, then the working classes will be gaining better wages than if the capitalists are not gaining profits, and whatever view you take of the determination of wages, it seems to me that must follow.

5574. I am endeavouring to test your theory by facts. I have asked you about the savings banks which are generally considered to be a test of the savings of the working classes. Then take the consumption of articles of food, such as tea, coffee, and tobacco; has not the consumption per head steadily increased during the whole of those 12 years?—Yes; I believe there has been progress on the part of the working classes.

5575. Then it is only a theory of yours that that progress would have been still more marked if gold had not appreciated?—Yes. It is only a theory, but I think it is a theory that would not be seriously disputed. I was only alluding to the wages in the manufacturing districts.

5576. You have not yourself made any statistical investigation into the question of wages?—No statistical investigation, but I have always inquired when I have been in any large town as to the condition of the labouring classes, and I think that what I have said is quite true. The working classes do feel, to some extent, the depression of trade.

5577. You must admit, I think, that it is rather a curious thing, if they feel it, that it is not shown in any of the statistics which usually are held to test the condition of the working classes?—If that is so, I should take the single cause as it is. You may show an improvement on the part of the working classes, but I should say that it ought to have been more, but for the absence of this cause.

5578. But then I understand your position to be

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this, that in spite of the facts that the savings of the working classes have increased continuously during the past 12 years, and that their power of purchasing, as shown by the consumption per head of the articles chiefly consumed by them, has also increased during that period, you would think it desirable to make a great alteration in our currency system, with the hope of still further increasing their prosperity?—Yes, that would be one element; and I should certainly think that the result would be an improvement in the condition of the working classes.

5579. And how do you think that their condition would be immediately benefited by it?—Well, in the first place, I should think that better trade with the silver-using countries of itself would tend to improve their condition.

5580. That is to say, that the silver-using countries would suffer, and that we should gain in proportion?—No; I rather meant that you would take away simply a disturbing element which depends purely upon money.

5581. But at present, I think your view is that silver-using countries have an advantage?—Yes, but it is a temporary stimulus due to monetary causes simply.

5582. You would take away that advantage from them?—So far, yes.

5583. And therefore your view is that the operatives of Manchester for instance would benefit, and in proportion the operatives in Bengal or Bombay would lose?—Well, I cannot say how far the operatives in India would lose if this stimulus were removed.

5584. But if they did not lose then the operatives of Manchester would not gain?—You must take into account prospective loss and prospective gain, that is all.

5585. But whatever is to be done it is in the nature of a transfer from one country, or from one class to another?—It is in the nature of a transfer of a certain stimulus; that is so, but at present a certain number of factories have been actually established in India, and it does not follow that if this system were adopted these factories would not go on simply through their own natural advantages.

5586. But if they did continue to exist through their own natural advantages, the operatives of Manchester would not be benefitted?—But you may go on rapidly increasing these factories in India, giving an undue stimulus to production by that action, and afterwards the reaction may come.

5587. But then to whatever extent that stimulus is given it is an advantage to India as long as it lasts, although it is a disadvantage to Great Britain?—Yes; as long as it lasts.

5588. Still, if it is only to last a very short time, it is not necessary to take it into account at all, probably?—It is very difficult to say how long it will last. I used temporary as opposed to permanent.

5589. But if it would last without the alteration, and would cease the moment the alteration which you suggest takes place, it is a fact, is it not, that your proposal would benefit, if it succeeded according to your expectation, the English operative to the disadvantage of the Indian operative?—Prospectively, that is to say. I have taken the opinion of some people who know something about India. They tell me that they do not think that the factories already started would be stopped by the adoption of this bimetallism.

5590. But the future development of India would be retarded by the change that you propose?—But then after all international trade, what is produced by one country and sent to another, must depend on something more solid than mere monetary conditions; it must depend on comparative natural and industrial advantages in the main.

5591. If that is so, if Indian competition is due to natural advantages, why meddle with currency?—Because I say Indian competition at present is not due merely to natural advantages; it is receiving a stimulus

in one way in exports, and receiving what is practically a protective duty on imports. It is not natural advantages only; there is also a purely monetary disturbance, which is influencing the trade of India.

5592. Well, then, so far as you deal with that monetary disturbance by legislation in this country, you will be injuring the operatives of India for the advantage of the operatives of Great Britain?—Yes, but I think on the whole both of them would gain by the adoption of what I have proposed, taking a term of years.

5593. The appreciation of gold is due to the large production of silver and the small production of gold, is it not?—I do not think so. That is only considering the element of supply.

5594. But that is the first cause, the primary cause?—It is one cause that must be taken into account.

5595. And by artificial legislation you could alter that and establish a fixed standard?—But it seems to me that the annual supply of the precious metals is only one element and sometimes a very small element in changing the relative values.

5596. What other elements do you take into account?—All the elements of demand. The principal demand being for coinage, it makes a very great difference if you allow or do not allow these precious metals to be coined. If for example all the nations in the world ceased to coin gold, that would have a very great effect upon the value of gold. The value of gold depends upon artificial causes quite as much as upon natural causes, and the natural production of gold is only one of the elements to be taken into account.

5597. But the chief reason for the present comparative depreciation of silver is its enormous comparative production with gold, is it not?—Not the chief reason, and by no means the true reason. I thought it was admitted in the report of Mr. Goschen's Committee on the Depreciation of Silver, that the additional supply of silver was not sufficient to account for the depreciation that then took place. My own opinion is most strongly that the depreciation is entirely due to the changes in the demand. If the old monetary relations had continued the changes in supply would have made absolutely no difference to the relative values of the precious metals.

5598. Then do you mean by the alteration in the demand the greater demand for gold for such purposes as Mr. Barbour suggests for hoarding and ornament, and uses in trade?—Well, we must take into account all the elements of the demand. There would be the demand for currency as well as the demand for purposes of the arts.

5599. Well, all those demands are in the nature of ordinary and natural causes, for the appreciation of gold?—Quite so, but then the principal demand always for the precious metals has been the monetary demand, and the monetary demand is purely an artificial thing, purely the product of legislation.

5600. But at the present time the people of India benefit, and the operatives of Great Britain in your opinion suffer, owing to the natural increase in this demand and the other causes to which you have referred. Do you think that you are justified by legislation in taking away from India this advantage, and in conferring it upon their fellow subjects in Great Britain?—Well, I think so far as India is concerned that there are a number of compensating advantages which would accrue to India, and it is not certain that there would be any positive loss at all by the adoption of this method. For example, capital would flow to India and the rate of interest would fall.

5601. But you have admitted that unless there is a positive loss to them there can be no positive gain to the operatives of Manchester?—I was looking rather to the future. It is quite possible that in the future, if this depreciation is allowed to go on for a term of years, India might develop certain trades which otherwise she would not do, and then I think that a reaction

would afterwards occur. As far as possible, we ought not to allow any trade to be determined purely by currency causes.

5602. (*Mr. Chaplin.*) Mr. Chamberlain referred you to statistics, and to the fact for instance that savings have increased, and that the consumption of commodities has largely increased as a proof that the condition of the working classes here has not been seriously affected by the present system; may that not be owing to some extent to the great improvement which has been made within the last few years in the compilation of statistics?—Yes, I think that is an element that ought to be taken into account.

5603. You were asked just now whether it was not the fact that there had been no considerable fall in wages, and no considerable diminution in employment so far as the working classes are concerned, and if that was the case, what their loss had been. I want to know if you have any knowledge of these facts of your own. Do you know for yourself that there has been no considerable fall in wages and no considerable fall in employment?—No, I do not; I do not know the statistics of that question.

5604. You are not able to say for yourself, then, whether the evidence which was given by a witness on the last occasion to this effect was true or not. What he said was that our towns had been crowded with unemployed people, and “I never saw such ‘continuous distress in Liverpool as in the last few years.’” You could not say of your own knowledge anything as to that?—I have no means. I can only go on general statistics and statements, and statistics as to labour are not in very good condition.

5605. Your general experience would lead you to believe that there probably has been, I understand, a fall in the prices of their wages and some loss in employment?—Yes, I think so; but in the manufacturing districts not such a fall in wages as might perhaps have been anticipated at present.

5606. You suggested that this loss of employment might not be shown possibly in the pauperism returns, because they might have been living to a certain extent upon their own savings?—That is a statement that I have often seen made.

5607. And when you were asked whether the fact that gold has appreciated during the last 12 years, would not, before this period, have consumed all their savings; do I understand that the effect of that appreciation has been felt during the whole of that period, or has it not been coming on gradually, and only been felt acutely within the last few years?—Well, that is a question which involves the degree of the general depression of trade. I am not able to say in what years depression began to be most keenly to be felt.

5608. Let me ask you one question as to India, and the effect upon the operatives there. I understood Mr. Chamberlain to ask whether the adoption of the remedy that you suggest would not be injurious to the operatives in India, although it might be beneficial to the operatives in England. But is it not the case that it may be said that the present system, at all events as far as the wheat industry is concerned,—I will limit it to that for the moment,—is making the fortunes of the rajahs and the ryots in India, while it is ruining the agriculturists and the agricultural labourers in England?—I think there is no doubt of the injury to the agricultural classes in this country. Of course I have no information as to the matter of fact in India, though I should think that the present state of things gives a great stimulus to the production of wheat in India, and it is quite possible that part of that stimulus may take the form of exceptional profit to the producers in India.

5609. And that stimulus, as I understand you, is afforded by the rate of exchange between England and India, which has been brought about entirely by foreign legislation since 1873?—Yes, I think that the stimulus is due to the fall in the price of silver, which operates upon and is shown through the Indian

exchange, and that the fall in the price of silver is due to legislation.

5610. Are you aware whether England is responsible at all or not for the legislation which was adopted at that time?—As far as I know, England did nothing directly, but I suppose there is not much doubt that England refused to make an agreement which other nations would be willing to make. So far there was a want of legislation upon our side. It would have been better, it seems to me, had England agreed to a convention at the former conference.

5611. We have had evidence given before us to the effect that England could not be said by any means to be free from a share of responsibility in the matter; I wanted to know whether that is your opinion?—That is my opinion; in that indirect way.

5612. (*Mr. Barbour.*) Are you aware whether or not England or some authority in England recommended the French to adopt the gold standard?—No, I do not remember that.

5613. (*Mr. Chaplin.*) You were asked in question 3971, whether there had been an universal fall in prices, and that was what at present there was no sufficient evidence of. I understand you have no doubt upon that point, have you?—No, I have no doubt that there is a general fall in prices, but I ought perhaps to explain that that does not mean that there is an uniform proportional fall in prices in every case.

5614. Did I understand you to say this morning that there had been a difference of 25 per cent. generally in prices?—I do not think I quoted figures. The estimate founded on the index numbers gives a fall of from 25 to 30 per cent., I believe.

5615. At all events, whatever the fall may be, you date that fall from the time that silver was demonetised by foreign legislation?—Yes, there has been a fall since that time.

5616. Can you trace it partly to that cause?—I should certainly trace it partly to that cause.

5617. In the reference to this Commission we are instructed to inquire as to the effect of the present system upon the internal trade and industry of the United Kingdom. Are you of opinion that the internal trade and industry of the kingdom has been injured in any way in all of its branches?—Well, there again I should repeat the answer that I gave before, that the loss of profit to the producers must have acted detrimentally upon that important interest, at any rate, the interest of the capitalists, and indirectly upon other classes.

5618. I should like to take the agricultural industry. Are you of opinion that that has been injuriously affected?—I should think the agricultural industry has been most injuriously affected of any.

5619. And in what branch chiefly?—Well, again it is difficult to give the facts of the case; but I should think, especially on the analogy of other trades, and from general principles, that in the first place the farmer would suffer, then the farmer would throw some of the loss upon the landowner, and some of the loss upon the labourers. In the first place the loss would fall upon the farming profits, that is what I should think; then it would fall upon the landowner, then it would fall on the labourer.

5620. (*Mr. Courtney.*) Do you discriminate between farmers, between producers of different kinds of produce?—Yes, I think that the grain farmers have suffered more than the stock farmers.

5621. (*Mr. Chaplin.*) Several witnesses, or some witnesses at all events, have given evidence to the effect that the present state of things acts exactly like an export bounty upon the wheat that is exported from India to England; is that your opinion?—That is my opinion, under present conditions.

5622. Would you state how that arises?—Well, the fall in the price of silver enables some one in India to sell the same amount of wheat for a less amount of gold than before, because in return for

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this less amount of gold the same amount of silver is obtained. The general position is that silver prices in India have remained practically steady, and as a consequence, so long as the same amount of silver is obtained for the wheat, for instance, the producers in India are satisfied; but owing to the fall in silver, this same amount can be obtained for a less amount of gold, and that causes a fall in the price of the wheat on this side, and in that way it seems to me to operate exactly like a bounty. The general effect of a bounty is to make a fall in the price of the article in the country to which it is sent.

5623. And to give a great artificial advantage to the grower of wheat in India?—So far as he can keep that advantage; so far as competition does not take from him that advantage and lead to the fall in prices on this side. I cannot say how the advantage is precisely distributed.

5624. At page 334 of the Third Report of the Royal Commission on the Depression of Trade, there is a table to which I want to call your attention. Mr. Palgrave says: "By examining this table, it appears that, speaking generally, every fluctuation of a penny in the rate of exchange is equivalent to an alteration of 1s. 5d. in the price of the quarter of wheat in England." Are you able to verify that statement; do you agree with it?—I remember reading the figures and quite agreeing with the general statement that the result may be such a fall in the price.

5625. But the effect of that statement as I understand it is this, that the price of wheat in England would rise and fall with the price of silver?—Yes.

5626. And you believe that to be so; you agree in that opinion?—Yes, so far as the Indian production influences the market, and at present, I suppose, it largely does so. I should like to refer to my answer in my first day's evidence to question 4147.

5627 Well, Sir Thomas Farrer asked you on the last occasion whether in the case of the appreciation of gold the loss did not fall on the capitalists and the producers chiefly?—Yes.

5628. I do not want to ask you any further questions with regard to the artizan working classes, but I want to know if you have any knowledge with regard to agricultural wages at the present time, whether they have fallen considerably or not?—Well, I made some inquiries myself since I was last examined here as to agricultural wages in the north of England, and I gather from a very trustworthy source that the wages there have fallen 20 to 30 per cent. in the agricultural districts. The person who gives me that information is a man who holds several large farms in Northumberland under different owners, and who also knows very generally about agriculture in the north, and that is certainly the case with the labour that he employs. He gives me his own figures, showing a reduction of 25 to 30 per cent. in the wages.

5629. Is it not the case with regard to the agricultural labourers that the greatest mischief is not the actual fall in their wages, but the fact that a vast number of them have lost their employment altogether?—Yes, I think that there has been a great loss of employment in the agricultural districts.

5630. Then in that case the chief loss is not limited by any means to the capitalist or the producers, but that the working classes are injured equally also?—The agricultural working classes are certainly injured.

5631. Now, with regard to other commodities, does this system act as a bounty also upon them as well as upon wheat?—Yes, as regards other exports from silver-using countries it seems to me under the conditions so far as we know them of silver prices remaining practically the same in those countries that it must operate as a bounty upon those exports, but whether the bounty will lead to a corresponding fall in prices always or whether it may lead first of all to an increase of profit it is impossible to say in every case.

5632. Well, then with respect to commodities sent from England to India, how are they affected; does

that act as a protective duty against them?—I should say that was the best way of describing it, that it really acts as a protective duty.

5633. That is, in fact, the English producer is hit in both ways?—Yes.

5634. And this is not owing in any way to natural causes?—Purely to a monetary disturbance.

5635. In consequence of legislation?—In consequence of a change in the monetary policy of different nations.

5636. Well, you have told us what is the remedy that you suggest. I want to ask you what would be the general effect of your remedy, firstly, on the prices of all commodities, and secondly, on the prices of the commodities which are specially affected by the rate of exchange between England and the silver-using countries?—Well, as regards the effect on the prices of all commodities, the general level of prices, I should not be inclined to suppose that so far as this cause was concerned there would be any great inflation of prices. I should rather say that if we return to the condition of affairs which existed before 1873, the utmost we could expect in the rise of prices would be a rise to the normal level before that time; but then when we take into account the great increase in trade and population and the great demand for currency of all kinds, then I should expect that we could not quite attain that level again; the result of this would be a check to the further appreciation rather than a restoration even to the old level.

5637. That would be the case with regard to the prices of commodities generally?—Yes.

5638. What do you say with regard to the prices of those commodities which are specially affected in the way I have described?—I should imagine that the effect on the prices of those commodities which have been influenced by the depreciation of silver must be a rise.

5639. Well, just to sum up what you have said. I understand you would be of this opinion, that if the remedy you propose were adopted it would be beneficial to trade, and it would be beneficial to agriculture in England?—Yes.

5640. And that as far as the agricultural labourers are concerned it would improve their position also?—Yes.

5641. Would you say the same thing with regard to the artizans in the towns?—Yes, I should expect a general improvement in their condition. Perhaps I might mention, as there seems to be some fear of an inflation of prices from abundant supplies of silver, if silver is made a standard metal, that I think it is generally admitted that the persons who gained most altogether in the great gold discoveries were the labouring classes. It is quite possible that if there was an abundance of silver, sufficient to produce a corresponding rise in prices, that the labouring classes would gain very much.

5642. Do I understand you that the labouring classes were the first to gain formerly in consequence of the great gold discoveries, or that in the end they were the chief gainers?—Yes, the impression on my mind from reading Tooke's History of Prices, where great attention has been given to the subject, is that there was an immediate rise, as far as could be calculated, in wages of 20 to 25 per cent. as the effect of these great gold discoveries.

5643. (*The Chairman.*) Was not that in part because the gold discoveries in Australia led to a great many people leaving this country to go to Australia and to their having increased spending power and consequently increased activity arising in commerce generally, shipping and other respects?—Do I understand that the rise in wages was due to the falling off in the supply of labour in this country owing to emigration?

5644. In part to the falling off in the supply of labour in this country owing to emigration, in part to the increased demand for commodities produced by the increased spending power of the people who had

gone to Australia to work for gold, and the necessity for transporting articles of commerce from this country to Australia, which again increased the prosperity of the shipping and other trades?—Yes, I should think all those causes operated. There was certainly a large increase in emigration from this country to those countries. There was a special difficulty in getting sufficient agricultural labour in the country.

5645. I mean those causes would operate, and operate quickly, quite independently of an increase in the volume of the currency?—But then I should not suppose that if the same amount of wealth had been produced in some other form in Australia that that would have produced the same effect as it did, taking the form of gold. I think that the effect of a great discovery of the precious metals is altogether different in kind, and in directness from, supposing it were possible, the discovery of a similar amount of other wealth. In support of this view I may quote a passage from Tooke, Vol. VI., p. 190. “A suddenly increased supply of no other commodity would produce effects so decided and rapid for the simple reason that (say) a tenfold quantity of no other commodity could find an instantaneous and impatient market.”

5646. (*Mr. Chaplin.*) Then I understand you that if the result of the remedy that you propose was to cause a certain rise in prices that the working classes would distinctly be gainers, in your opinion, by that operation?—Yes, I think that this check to falling prices would benefit the working classes, and I think that follows from the generally accepted view now as to the way in which wages are determined. Both wages and profits are really paid out of the price which is obtained for the product. If prices fall the whole of this fall in prices cannot be continually taken out of profits, especially considering the small proportion relatively of profits; it must ultimately fall on some form of labour.

5647. Well then, you say it would help trade and agriculture, which are the two great industries of the kingdom, and that it would benefit the working classes also?—That is my opinion.

5648. Would it injure any other classes, and if so, what class, and how?—The answer would depend upon the extent of the rise in prices. If there was, as I do not suppose there would be, a very great inflation of prices, the people who would suffer principally would be those in receipt of fixed incomes. Those classes would suffer who were enjoying the benefit of former contracts. Middlemen also might suffer, and so far the consumer would not.

5649. Those enjoying the benefit of former contracts would lose because, to some extent, gold might lose part of its purchasing power?—Yes, and that is the way in which they would lose.

5650. They would be, I presume, then a very limited number of people compared with those whom you anticipate would gain?—I think the number of those whose incomes would not be raised by a rise in prices must be very small compared with the mass of the people of the country. The incomes of the mass of the people of the country feel very soon movements in prices, but it is only a comparative few who obtain fixed salaries, and so on.

5651. It has been urged by some witnesses that there are considerable objections to be raised to your proposal, some contend that it would vitiate contracts; others that the gold would leave the country; and again, others maintain that there would be an immense difficulty in maintaining a fixed ratio between gold and silver. Do you believe in any of these objections. Have you any apprehension of consequences of that kind?—Well, these are objections which I have very carefully examined, and on which I have published papers, and I do not think myself that they are of any force. I would answer them, if you wish, more in detail, but that is my general conclusion.

5652. (*Mr. Courtney.*) I understand you to say that the effect of either a greater production of silver and the diminished production of gold, or else of the

dislocation of the relation between silver and gold in consequence of the cessation of free mintage has operated in India by way of a bounty to the producer?—That seems to me the best analogy, yes.

5653. Whereby wheat can be brought from India and sold here at a less cost than would otherwise have prevailed?—Yes.

5654. And you lay down the principle that that is an injury to the people of this kingdom?—I admit that getting wheat cheaper than otherwise they would do benefits the consumers of wheat, as long as it lasts.

5655. No doubt the consumers of wheat, but the kingdom, I said?—Well then, on the question of the kingdom, it seems to me that we have to take into account a summary of all the various interests affected, for instance, the interests of the agricultural labourers that I have just been asked about.

5656. Well, I wish you to take into account in your own mind all these interests, and to answer the question whether the operation of that cause which produces the effect that wheat is sold here at a less price than it otherwise would have been sold at is an injury to the inhabitants of this kingdom?—I think that when we take into account the loss sustained by agriculture, and the probability that the wheat, at any rate, would never rise to any great height if this change took place, the change would be an advantage. On the whole, I think the change would be an advantage.

5657. On the whole, what change would be an advantage; the introduction of wheat at a less cost would be an advantage?—The change which would neutralise this cheapness due to the depreciation of silver.

5658. Wheat is imported into England and sold in England at a less cost owing to the operation of a certain cause, than otherwise it would have been imported and sold at; is that an injury to the people of this country?—Well, it is not an injury to the consumers of wheat, that is all. It is impossible for me to add up all the different effects and give you an answer to the sum after it is added up. I must take them one by one. I say the agricultural labourers are injured by it; the farmers are injured by it.

5659. And you cannot venture upon an estimate of the effect upon the general well being of the mass of the inhabitants?—I cannot make a reasoned summation at a moment's notice, it is impossible.

5660. Suppose twopenny loaves rained like manna from Heaven every morning, would that fact be injurious or beneficial to the people of this kingdom?—I do not quite see the meaning of the question. I acknowledge, of course, that cheapness is a good thing for the consumers of certain articles. We must also consider producers of the same articles. It is very difficult to estimate the gain of the one and compare it with the loss to the other. Suppose, for example, that the cheapness only lasts sufficiently long to ruin the agricultural interest of the country, that land goes out of cultivation, and buildings and improvements are not kept up. The nation might pay very dear in the end for this temporary cheapness.

5661. (*The Chairman.*) I suppose you would say that if the same cause which produced this cheapness was operating at the same time to reduce the purchasing means of those who could purchase, that that must be taken into account in estimating the total result?—Yes, so far there might be no gain.

5662. (*Mr. Chamberlain.*) Would you entertain the same doubt as to the general result of the imposition of a 5s. duty on corn. That also would, according to your view, benefit the agricultural labourer and the farmer, would it not?—Yes, I suppose it would.

5663. And you would feel yourself unable to say whether or not the destruction of our free trade theory and the imposition of a 5s. duty on corn would be a good or a bad thing for the country?—Well, there again I should have to reckon up what would be the danger of admitting any exception to all free trade principles, what would be the practical effect of the abandonment of a general policy. If I might say

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anything about the question of free trade, I think, theoretically, it is quite possible to conceive of certain exceptions, but taking the whole question you have a general impression that the policy is so important for this country that you would have to consider very carefully before you ever thought of making any change of that kind. Continental nations are applying protection to wheat.

5664. But if you are convinced that the effect of a change in the currency which would increase the price of wheat in this country, would be good for the labourer and the farmer, and you are uncertain whether on the whole it would not be a good thing for the country, I suppose exactly the same answer would apply to the proposal to put a 5s. duty on corn?—There would certainly be benefits. By a 5s. duty on corn there would be benefits to the agricultural interest certainly.

5665. (*The Chairman.*) I suppose you would say that the 5s. duty on corn would not affect the general spending power of those who purchase corn, in the same way as you say changes in the currency might?—Well, it is very difficult to trace the indirect effects of any duty; possibly the effect would be to lessen the spending power whilst the proposed change in currency would increase it.

5666. (*Sir T. Farrer.*) On the same ground you would doubt whether the making of the Suez Canal, the cheapening of freights, and the opening up of India by the railways, by which corn has been introduced so cheaply into this country, is a benefit to this country or not?—Yes, I think it might be doubted, just as it is quite possible that owing to some change of that kind which benefited the world as a whole, one particular country might lose its commerce. It is said, for example, that the discovery of the Cape route to India ruined the towns of northern Italy.

5667. We being the great purchasers of the commodity which is so cheaply produced?—But then we are also producers of that commodity. Agriculture is still our most important industry.

5668. (*Mr. Barbour.*) May I ask you one question? Do you think that under any circumstances it can be a good thing that the producer in one country should have a bounty as compared with the producer in another country?—I think that the system of bounties for the world at large is certainly a great source of mischief.

5669. Do you think a bounty on wheat from India would be an injurious thing to the Empire as a whole, including both India and England?—Anything in the nature of a bounty or a monetary disturbance which acts like a bounty is prejudicial to this country and to India, taken together. If it is not it would be a good thing for the Empire if all our colonies gave export bounties or adopted a silver standard.

5670. (*Mr. Courtney.*) Mr. Barbour called your attention to the great increase in the production of gold between 1850 and 1873 in relation to the production of silver and to the steadiness of the relative price of gold and silver during that period; and he asked you whether you agreed in the conclusion that the price of gold and silver depended rather more on the demand than on the supply?—Yes.

5671. And you did agree with his conclusion?—Yes.

5672. (*Mr. Barbour.*) I think my exact words were that we were to look for the causes of the variations in recent years rather to the demand than to the supply?—Yes, I should put it in that way; we must always consider the supply as well as the demand.

5673. (*Mr. Courtney.*) There were variations in supply between 1850 and 1873 which did not produce a variation in the price of gold and silver?—Yes.

5674. There has been a variation in the price of gold and silver since 1873, and that must be ascribed to the variation in demand, and not to the variation in supply?—I think it is due to a variation in demand; that is to say, a change in supply that has occurred

would not, if other things had remained the same, have produced a change in the relative value.

5675. You think those questions and answers are exhaustive in that part?—Not in that brief form in which you have put them now.

5676. Is it not very necessary to take into consideration the existence during the first period of free mintage in France which has not existed since; so that the effect of the variation that has arisen since 1873, which did not arise before 1873, may be ascribed to the cessation of free mintage?—Certainly; I mentioned that as one of the causes that I thought did operate.

5677. (*Mr. Barbour.*) Would you look upon the cessation of free mintage in France as an alteration of demand?—The difference is between using silver really as token money and coining any quantity brought to the mints as standard money.

5678. But may I ask if you look upon cessation of free mintage as a reduction in demand?—Yes, it is equivalent to a reduction in demand. I should look on it in that way.

5679. (*Mr. Courtney.*) Now, the prime factor in determining the value of the precious metals is its use as money?—Yes, certainly.

5680. A prime factor in determining the amount of the precious metal which is produced is the combined possibility of its use as money?—Yes, I think that operates, certainly.

5681. And if the nations united together to agree that gold and silver should be equally applicable to the payment of debts in the relation of 15½ to 1, that would have a considerable influence on the production of gold and silver?—I think that the condition of things would be like it was before the change took place.

5682. (*The Chairman.*) But I thought since the change in demonetising silver took place you had not had less silver produced but more, and not more gold produced but less?—Well, so far of course I would say that, owing to the fall in the price of silver relatively to gold, there has been or there may have been a contraction of the production of silver, and so far there may be an increase again in silver. As regards gold there can be no such increase, and there might possibly be a further slight falling off in the production of gold, owing to this cause. I should certainly admit that if you raise the price of silver reckoned in gold you tend to get greater supplies from the mine, so far as that cause may operate, but I do not think that the effect would be very great.

5683. (*Mr. Courtney.*) Well, the miners are speculative people, but even miners will not carry on mines at a loss?—We must take into account the differences in the relative production of the various mines, and it is only the mines on the margin of mining, or whatever the phrase you choose to describe it, that would be affected. The good mines and the more productive mines would still continue to produce whatever the prices were, within any reasonable limits.

5684. Mines are abandoned and opened?—Yes.

5685. Abandoned because they cease to be profitable, and opened because they promise to be profitable?—Yes.

5686. If you had a general law amongst civilised nations, that silver should be to gold in the proportion of 1 to 15, you would have silver and gold produced roughly under conditions that the gold cost 15 times as much labour to put upon the market in a civilised country as silver?—I do not think that follows at all, because it may be that the gold can be produced for nothing at all, and yet, owing to the limited quantity of it, it might still be of that value. I do not think that the cost of production element enters in, in the way you suggest.

5687. But there is neither gold nor silver as the amount that can be produced absolutely fixed; there is a margin of production?—There is a margin of production, yes.

5688. You can always get more with greater labour?—Yes, a certain amount.

5689. Well, is not that margin of production one or other, speaking roughly; would not that be fixed by the law of ratio established in the market where both are brought for sale?—No doubt the margin to which the mining was carried would depend partly on the ratio. If, for instance, silver measured in gold, were to sell at 60*d.* per ounce instead of 46*d.* per ounce, that might lead to the opening up of some silver mines.

5690. Or possibly to the shutting up of some gold mines?—Or possibly to the shutting up of some gold mines, though that, I think, would be much less likely.

5691. But why now, if you declare that 15 ounces of silver shall be of the same use in London as one ounce of gold, and you can produce now 20 ounces of silver and bring it to London at the same cost as one ounce of gold, is it not clear that the people would come to the silver rather than to the gold, and that the producers of gold would be put to a disadvantage, and would gradually work off their less profitable workings?—But I cannot understand how the cost of production could possibly operate in that manner. It is not as if it were open to the workers in gold mines to go and work in silver mines, and produce silver instead. You cannot get a transference of capital from gold mining to silver mining; it could only operate in a very indirect manner. There would be an encouragement to invest capital in silver mines rather than gold, and I do not see that it could operate to a greater extent than that.

5692. A gold mine would find that its cost of labour and materials relatively to what the produce was, was continually increasing, that the enterprise was less profitable, and it would gradually diminish, and ultimately might be abandoned?—Yes; but so long as the gold mine yielded any profit at all the gold mine would be worked. I should imagine that the greater part of the return to the owners of gold mines is really a form of rent, and until the whole of that had disappeared there would be no cessation of the gold mining.

5693. But are you at all acquainted with the circumstances of gold mining in Australia. You suggest that the greatest part is in the form of rent?—I say that the production is under different circumstances. If you take the first effect of any change then you would only operate upon that part which was produced under the most unfavourable circumstances. I presume, in taking gold mining on the whole, that gold is produced with different degrees of cost, and you would only operate upon that element which is produced at the greatest.

5694. No doubt "the margin of cultivation," to use a classical phrase, would feel it most, but gradually there would be a contraction of gold production?—Unless there was such an effect on general prices as to raise the wages of the gold miners and the cost of machinery, and so on, there would be no contraction of gold production.

5695. But is it not reasoning in a circle to say that differences in supply do not affect the relative price of the metal when in truth the differences in supply are determined by the relative price of the metal?—I do not see any difficulty. I can quite understand how the differences in the annual supply depend upon not only the relative differences in gold and silver, but the general level in prices. That seems to me quite clear, and yet the annual supply operating through the infinitesimal addition to an immense stock has a very small influence.

5696. Mr. Barbour spoke of the possibility of a general increase in wealth leading to a greater consumption of gold in ornaments in domestic use and a consequent still greater appreciation of the standard?—Yes.

5697. But would not the greater increase of wealth be a function of the quantity of gold used for domestic use and ornaments, or rather, would not the quantity of gold used for those ornaments be a function of the general increase of wealth?—Certainly, that is what

I understood Mr. Barbour to mean, that the amount of gold used for the purposes of the arts, ornaments, and so on, would be a function of the growth of wealth in the community.

5698. And under a natural system, would not there be the same movement in the standard; would not that be a function of the general wealth of the community?—I am afraid I do not follow.

5699. Supposing the general increase of well-being is such that people with the same quantity of labour, so to speak, could go to the sacrifice of providing themselves with a gold watch, ought not, on the other hand, those who have a claim to a sovereign, or the possession of a sovereign, expect that that sovereign would in the same way represent a varied command of the use of labour?—That is, we ought to expect a variation in the purchasing power of the standard.

5700. Do not the two things go together? They depend on the same causes?—Yes, they depend upon the same causes, but operating in different ways.

5701. Is there anything to object to in the two operations being conjoined?—Well, the difficulty, as I understand it, is that you abstract from the available supply of gold for currency a certain amount, and use it for the arts and so on. At the same time you get a constant increase in the demand for currency, if you are to keep prices at the same level. Well, the supply is not forthcoming, and so prices fall; then you have the difficulty of a changing standard, and I should say the less change you get in your standard the better.

5702. (*Sir T. Farrer.*) I do not think I quite understand what you look to as the ideal or *summum bonum* in the standard. Is it that the same quantity of the standard should at all times be exchangeable for the same quantity of the same commodity?—I do not think that, because that would imply that you would get no change in the relative prices, that prices would always remain permanently fixed in the same manner. That is impossible, I should think.

5703. But in order to follow up Mr. Courtney's question concerning the relation of wealth to the standard, let me ask you this, supposing gold to be the standard and supposing further that we had only one commodity—wheat, that the supply of gold remained absolutely constant, but that the supply of wheat was doubled from improvements in agriculture and transport, should you think it the *summum bonum* of the standard that the same quantity of it, say 2*l.* or 40*s.*, should exchange for one quarter of wheat?—It is very difficult for me to look upon the standard as measured by one commodity.

5704. But I want to get at what you were looking for when you were talking about an ideal standard?—Well, I would illustrate it perhaps best in this manner, that I think nothing can be worse for a country than the adoption of inconvertible paper. It leads to a fluctuating premium on gold, and that really means a fluctuating purchasing power, which is the worst thing that could happen to a country. Well, so far as gold approximates to that, gold is a bad standard.

5705. Let us make a further hypothesis; supposing that all the commodities exchangeable against gold, or measurable in gold, which is perhaps a better phrase, are doubled in quantity at the same cost in labour or human effort, while the quantity of gold remains the same, should you think it a defect in the standard if the same quantity of gold then purchased double the quantity of commodities?—That is to say, should I think it a disadvantage if prices fall away to increased production?

5706. Yes?—No, certainly not, because I should say that any relative fall in prices due to decreased cost of production must be shown in that manner.

5707. (*Mr. Barbour.*) But do I understand you to mean that if production is cheaper it is still better for the world if the standard keeps pace with the cheapening of production, so that prices are always the same?—But then my difficulty is whether I am

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to understand all commodities to be increased in the same proportion, which is a very difficult position to take up, or if I am to understand that you get some particular commodity cheapened. I think it is necessary that any diminution in the cost of production of a particular commodity should be shown by a fall in its price and so over a large number of commodities.

5708. (*Sir T. Farrer.*) I wanted rather to illustrate Mr. Courtney's proposition about the wealth of the country. I want to know whether, supposing the wealth of the country doubles, that is to say, suppose all the commodities which people use are doubled with the same expenditure of human labour, while gold remains the same, and the same quantity of gold consequently buys twice as much of every commodity, whether you would consider that a defect in the standard?—Well, then I should think that it would be better if everything were doubled, and the number of transactions were doubled, and the number of people were doubled, it would be better for gold also to be doubled.

5709. It would be better that the foot rule should be doubled as well as all the other things that are measured by it?—I should think so.

5710. (*Mr. Barbour.*) Do you think the change should be described as a doubling of the foot rule. There is no close analogy between the measure of extension and the measure of value; is it not rather that the foot rule should remain the same?—It is very difficult to seize the exact point of any analogy at once, but I do not see that there would be any objection theoretically if you suppose everything doubled to have the quantity of money doubled also. In that case nominal wages would remain the same, in the other they would be halved.

5711. (*Sir T. Farrer.*) You spoke rather positively about the effect of this depreciation of silver upon the price of Indian commodities, and especially upon wheat, have you examined the data that we have had before us, papers by Mr. O'Connor and others, as to certain causes which have cheapened Indian commodities, such as transport and railways, freights, &c.?—Well, I have looked into these papers, but I certainly did not mean to express myself positively at all as to the influence on the final price of wheat; all that I was doing was to take the effect of one particular cause, and to say that, so far as that was concerned, it ought to operate in that way; it may be neutralized by other causes.

5712. You have not looked at the other causes which operate, to see whether those causes are sufficient in themselves to account for the fall in Indian wheat?—I should take it up analytically that if you have a fall in the price of silver that of itself does permit of the Indian wheat being sold at a cheaper rate.

5713. But you have not looked into the actual causes which operate to see whether there are not other causes which ought also to operate to make them fall?—I can only refer to my former answer to question 4147.

5714. Now, let me take a statement you have written with care, and therefore I would rather take it than what you have said to-day. You say: "Observe now the consequences which follow from the failure of Indian prices to move in correspondence with the fall in silver. Prices in India being the same, or indeed a little less, the producer of wheat, or any other Indian staple, will gain quite as much as before, as well as have the same real income in India, if he obtains the same number of ounces of silver as he did. If, however, in London, an ounce of silver, reckoned in our currency, is worth 25 per cent. less than it was, the Indian can sell his commodity for a gold price, less by that percentage, and yet obtain his usual or profitable number of ounces of silver." Now I want to ask you whether that does not assume that a rupee is worth 1s. 6s., or 1s. 6d. worth of commodities in London, and 2s.

worth of commodities in India, at the same time?—I adhere to the quotation you have made.

5715. Well now, does not that assume that a rupee is worth 2s. worth of commodities in India and only 1s. 6d. worth of commodities in London. I want to know whether it is possible that a rupee shall be worth 1s. 6d. worth of tea or wheat in London, and, at the same moment, worth 2s. worth of wheat in Calcutta?—I am afraid I have not followed the point in your question as bearing on this assertion of mine, because what I say is that the effect will be the reduction in this gold price on this side, so that, so far as the wheat is concerned, you would get the same price.

5716. (*Mr. Birch.*) Would you allow me to put the real meaning of it. It is this: he sells for 1s. 6d. in gold, that is the difference. It is 1s. 6d. in gold, not 1s. 6d. in silver, because 1s. 6d. is simply token coin, whereas the 2s. in India is a real coin; that is the difference?—I agree with Mr. Birch's statement.

5717. (*Sir T. Farrer.*) I perfectly understand that. I am speaking of 2s. and 1s. 6d. as fractions of a sovereign. I want to know whether I am right in my construction of your paragraph. Whether that construction is true, and if not where is the bounty?—The point that I wish to bring out by saying it is a bounty is that it leads to a reduction in price, like every other bounty.

5718. You told us that you did not know where the extra sixpence went to, whether it was the profit of the Indian rajah or ryot, or where it went, but there is, according to your account, sixpence to play with, and I want to know where that sixpence comes from. Is not the real fact this: the man in England spends 1s. 6d. on his rupee, but that 1s. 6d. is gold, and, gold having risen, it is as much as 2s. was before?—Yes, that is the monetary position.

5719. Therefore, the real thing is that gold has risen in England. He buys his rupee; the rupee is worth 1s. 6d., and he buys with his rupee the same quantity of wheat that he could originally have bought with 2s., it is true, but it is because that wheat has fallen from other causes in the same way in which the silver has fallen. You do not think it possible that a rupee can be worth one quantity of a transportable commodity in London and worth a separate and a different quantity of the same commodity in India?—No, not more than by the cost of carriage and other reasons of that kind.

5720. (*The Chairman.*) I understood your position to be this; that owing to the change in the value of silver, as compared with gold, a lower gold price here gave to the producer the same silver price there?—Yes, that is my position.

5721. That he was content to get the same silver price because he paid wages in silver, and the other burdens that fell upon him were payable in silver?—Yes.

5722. And so his position, being to him, apparently, the same, getting as much silver as he did before, he was content to sell at a lower gold price than he would have been?—Yes.

5723. (*Sir T. Farrer.*) That is on the assumption that gold is appreciated?—I think we can separate the direct effect of the depreciation of silver from that of the appreciation of gold.

5724. In that case the producer in England will also have had his expenses reduced; gold will have appreciated against all things in England as well as in India?—But I do not see that we bring in the question of the appreciation of gold at all. This is an illustration of the effect of the direct operation of the depreciation of silver.

5725. (*The Chairman.*) Supposing that he gets a lower gold price here (which is the hypothesis), which brings him the same number of rupees that he got before, I am not quite sure that I can see how that stimulates production there. If he, owing to the change, got the same gold price, and therefore, more silver rupees, and therefore made the transaction more profitable, I can understand that stimulating production; but if

the net result is to bring the gold price down, by reason of his being content with the same number of rupees as before, I do not see what there is to stimulate production?—When it arrives at that limit, there would not be any stimulus of that kind; but it seems to me to operate just as bounties on production or on exportation from foreign countries. In the first place, there is an attempt on the part of the producer, or on the part of the importer, or on the part of those who have to handle the corn, to keep the bounty to themselves; but then this constant attempt to keep that bounty to themselves is finally defeated by competition.

5726. But then, when it has arrived at that point, there ceases to be a bounty?—When it has arrived at that point there ceases to be a bounty; but any further fall would act again as a bounty.

5727. (*Sir T. Farrer.*) Then what you mean is, what we have heard before, and what other witnesses, when pressed, have come to, that the bounty really consists in this, that pending the adjustment of prices, the producer in England has to pay the same nominal wages and expenses as before, but which, owing to appreciation, are really larger than before, while the producer in India had to pay no more than he had before?—That is the real adjustment.

5728. But when the adjustment is effected, then that bounty ceases?—Supposing all the elements in cost of production are adjusted, then it would cease.

5729. I want to ask you one question with regard to the figures which Mr. Barbour put to you. He put these figures, I think, that from 1493 to 1850 there had been 650,000,000*l.* of gold produced on the whole, out of which, of course, a very large amount must have been wasted or consumed before 1850; that from 1850 to 1885, 890,000,000*l.* had been produced, of which also a certain quantity must have been consumed. Well now, supposing your remedy is adopted, and you bring in silver to the assistance of gold, remonetize it, the amount of silver, I think, produced from 1850 to 1885, was 480,000,000*l.*?—Yes.

5730. Now, if I understand the effect of bimetallism, it would not be to raise the value of silver as money by more than one-fourth, or more than it has fallen, would it?—No.

5731. Therefore, what you would bring in to the assistance of gold would be certainly not more than one-fourth of the 480,000,000*l.* as compared with the 890,000,000*l.*?—Yes.

5732. Well now, if the demands upon gold have been so great during the last 15 years that we want a very much larger quantity of money for our standard, how long and to what extent will this addition of silver to the gold have any such effect as you desire?—All that I said was that it would operate to a certain extent in assisting gold and in preventing this appreciation, but I tried to bring out the fact that the effect would not be very great. We should still get the appreciation going on even if we had the two metals.

5733. So that it would be only a very small depreciation, would it, of the present value of gold. If, during these last 15 years, we have so largely consumed gold as to make the 890,000,000*l.* produced since 1850 insufficient for our wants, then the present addition of about 100,000,000*l.*, which would be the additional value given to silver, would make uncommonly little difference, would it not?—Then there is the other fact to consider, of making the two standards.

5734. But that is quite a different point. My present question is only with regard to the scarcity of gold?—Yes, the position that I have always taken up is, that even with the two metals together, we shall still have appreciation going on.

5735. It is a very difficult thing to distinguish between what you can look on as being hoarded and used for ornament, and what you have available for currency purposes; it is very difficult to draw the line?—In the operation upon prices.

5736. You cannot tell when the French peasant may be tempted to bring his gold out of his stocking or the Indian peasant take off his wife's bangles to be

coined?—We cannot tell that, but till they do so they cannot operate upon prices.

5737. (*Mr. Barbour.*) I think you said that the general level of prices depended upon the amount of gold left over as currency, after all other demands had been satisfied?—Yes.

5738. And probably the amount left over as currency may be very much less than the total production of gold, since 1850?—Yes, certainly.

5739. Then if the amount left for currency happens to be very much less than the production, an addition of not very many millions to it might make a considerable difference in prices in the future?—Yes, it might do so, certainly.

5740. (*Sir T. Farrer.*) Have you thought what would be the effect of adopting bimetallism with a ratio of 15½ to one in India, first of all, on the supposition that India were included in the bimetallic League, and secondly, on the hypothesis that India were excluded. Let me ask you first, would you include India in the Bimetallic League?—Well, I have never thought out very carefully the different points in that question; naturally I should be inclined to include India.

5741. Suppose India were included, what would be the effect of adopting the ratio of 15½ to one upon India and upon the currency in India?—I should not think there would be any difference on the currency of India. I should think it would still mainly consist of silver.

5742. You do not think gold would go there any more than it does at present?—I cannot see any reason why India should change its actual currency from silver to gold.

5743. I was not asking so much with reference to that as to what would be the effect on the value of the Indian currency. Would it raise it by 20 or 25 per cent.?—Would the total mass of Indian currency rise in value, supposing India had so many millions of silver?

5744. Yes?—It would compared with the present prices on this side; it would raise it, but not in India.

5745. You think it would make no difference there?—No, no difference.

5746. But it would make a difference in its value for the purposes of export?—For purposes of export.

5747. And that would raise the value altogether, I suppose, would it not?—I do not think the adoption of bimetallism would make any difference on the general level of prices in India, because India would still use silver, and have the same amount of it.

5748. But you think it would make a difference on the level of prices here?—General prices on this side would rise to some extent.

5749. Why on this side and not on the other?—Because India already has silver, and it would not affect the currency of silver.

5750. But if it made the silver much more valuable for export in India, would it not cause an export from India or prevent an import of silver into India?—But I do not think the condition of trade would ever be such as to lead to the export of silver from India.

5751. But how could it have an effect on one side and not upon the other?—I am afraid perhaps I have not understood the question you put as to the value of the currency.

5752. Let me put it again more clearly. If I understand you, the adoption of the bimetallic system would have the effect of raising the purchasing power of silver in this country, at any rate?—Yes, silver would at any rate obtain more gold, and unless commodities rose in equal proportion, more of them too.

5753. And would it have the effect of raising the purchasing power of silver in India?—I think the general level of prices in India, being silver prices, would remain the same, and silver would fetch the same as before.

5754. (*The Chairman.*) You say that the change from 15½ to 1, to 20 to 1 in the relative value of silver and gold, has not affected silver prices in India, as a matter of fact?—Apparently not, as I understand it.

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5755. (*Mr. Birch.*) But would it not affect them, supposing prices remained here the same? Prices would have to fall in India to meet a rise in the exchange?—I do not follow that. I do not think prices on this side would remain the same.

5756. The so-called bounty would disappear?—In my view the so-called bounty has caused a fall of prices on this side, not a rise in India.

5757. (*Sir T. Farrer.*) I am taking England as a gold-using country, and India as a silver-using country, as a case on which to try the bimetallic system, and I want to understand what would be the effect; do you think that the adoption of this bimetallic system would be slightly to raise the level of prices in England, or make it higher than it would otherwise have been?—Yes.

5758. Would it have any, and if any, what effect on the silver prices in India?—Unless silver were sent to the East, general prices in India could not rise. Of course, articles of trade between the two countries would be the same, allowing for transport.

5759. It would make silver slightly more valuable here, and therefore it would make it a less desirable article of export?—So far.

5760. That would diminish the supply of silver for India?—It might not be sent to India in such quantities, so far.

5761. And in that way it ought, theoretically, to cause a fall in prices in India, ought it not?—So far.

5762. (*Mr. Barbour.*) There is a great deal of silver sent to India at present, is there not?—Yes.

5763. And there is good reason to believe that a large proportion of that silver is hoarded?—Yes, I have seen that stated. Of course I have no information.

5764. Assuming that to be the case, that silver would have no effect upon Indian prices?—No.

5765. But if that silver instead of being sent to the East had been coined in France, it would probably not have been hoarded to the same extent, and would have had an effect on prices in the West.

5766. (*Mr. Fremantle.*) I understood you to infer, in answering Mr. Chaplin, that the failure of the Paris monetary conferences was due to the action of England?—That was my impression, that England refused altogether to have anything to do with any international convention.

5767. And are you aware that the resolutions which were passed at the Conference of 1878, and which did not recommend the adoption of bimetalism, were proposed by M. Léon Say, the President of the Conference?—Well, I have not read the report recently.

5768. The third resolution ran as follows: "That the differences of opinion which have appeared, and the fact that even the States in which the double standard exists, find it impossible to enter into any engagement with regard to the unlimited coinage of silver, precluded the discussion of the question of establishing an international relation of value between the two metals"?—I cannot recall the resolutions which were come to, but my general impression from reading the evidence was that it was the refusal on the part of England to entertain the proposal at all which made it impossible for the proposal to be adopted.

5769. Well then, at the Conference of 1881, no resolution whatever was proposed?—It was well understood, at least I gathered so from the report, that the English commissioners were instructed to entertain no proposal.

5770. Apart from that, there has not been any thing like a consensus of opinion on the part of foreign nations in favour of the adoption of bimetalism, as shown at the conferences?—I am not able to say that there has been; but still I should have been inclined to think that at the present time the United States, France, and Germany, if England agreed, would

also be willing to agree, but I have no special information.

5771. Do you not think that it is rather for foreign countries, some of which have had experience of bimetalism already, to raise this question, than for England to come forward with offers of new arrangements?—I do not know whether it is for England to take the lead in such a measure. I am not able to give an opinion merely on a question of policy. It would be quite enough, I should think, if England were to express no unwillingness to entertain the proposal.

5772. (*The Chairman.*) You exclude from the volume of currency which would affect prices all gold, supposing that to be the standard, which is used for ornament or hoarding?—Yes.

5773. You include all the rest?—Yes, I think so.

5774. Well, the gold that is not used for the purpose of ornament or for hoarding would be gold, either turned into coin, or held as reserves by banks?—Yes.

5775. Now, when this special demand for gold arose in Germany, can you tell us whether that diminished the coinage in gold-using countries or diminished the reserves?—I have no information as to the exact sources from which the supply of gold came for Germany.

5776. Supposing that gold went from France to Germany, and the gold that went from France to Germany were replaced in France, if not by coined silver by silver reserves, that would have no effect upon the volume of the currency, would it, at all?—No, so far I should think there would be no effect on general prices. So far as that was concerned, it would be merely the substitution of one metal for the other between two countries.

5777. When the transaction was completed, Germany had so much less silver, so much more gold; is there any evidence to show that, taking all the countries together, the volume of the currency in the sense in which you have explained it, that is, coinage and what was held in reserve, was less than it was before?—That the volume of the currency was less?

5778. Yes?—I am not able to give any statistics; that was my impression.

5779. It would not necessarily be less, would it?—Not if the gold were drawn from silver-using countries. If the gold were drawn from bimetallic countries, which would take silver instead, then it would not necessarily be less.

5780. But it must have come in some such way, must it not, unless you have had an actual diminution of the coins in use by some country, or an actual diminution of the reserve?—Well, I thought it might come, to a large extent indirectly from undeveloped countries, because those countries were indebted to countries on this side. That was my impression, but then I am not able to quote definite evidence in support of that view; but that is one way in which it seemed to me that the diminished gold might act upon prices.

5781. Or do you think it possible that, to a certain extent, it was got by diminished supply at the time, for the purposes of ornament?—I do not think it could be obtained in that way.

5782. Or hoarding?—There again it possibly might come from hoards. I do not know whether the French peasants hoard gold as well as silver.

5783. So far as it came from hoards it would not affect the volume of the currency, in fact, so far as it came from hoards, it would be so much brought into currency, which did not form part of the currency before?—Yes; but then it would displace silver, which would become a commodity.

5784. But that would leave things as they were?—It would so far leave things as they were. I am only able to give a theoretical opinion on the possible sources of the supply. I cannot say as to the facts where the supply really came from.

The witness withdrew.

Adjourned till Monday.

Twenty-third Day.

Monday, 23rd May 1887.

PRESENT :

THE RIGHT HON. LORD HERSCHELL, the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.

MR. J. W. BIRCH.

MR. HENRY CHAPLIN, M.P.

SIR T. H. FARRER, BART.

MR. C. W. FREMANTLE, C.B.

MR. GEO. H. MURRAY, *Secretary*.

Mr. HENRY HUCKS GIBBS recalled and examined.

5785. (*Mr. Birch.*) I believe that to carry out your bimetallic scheme you consider it imperative that there should be an accord of nations, and have stated in some of your writings on the subject that such a thing is clearly possible, and that all doubts raised by people of the contrary opinion have no foundation?—I never like to say that other people's opinions have no foundation whatever, but I think that whatever the foundation, the superstructure they build is incorrect, for I have no doubt whatever that such an arrangement could be made.

5786. I do not know if you have read an article on "Coin and Coinage," by Rice Vaughan, 1675, published in "Select Tracts on Money." I was struck by a paragraph which bears on this subject, and I wish to ask what you have to say with regard to it. He says: "Amongst all the remedies propounded against the alterations of moneys there is none more specious than this, nor more frequent in mention, both in provisional edicts, which are made for the reformation of moneys, and in considerations held for the purpose, for it is said to advance it. That if we contract with other nations for a certain and stable standard of moneys which may be equal, then we shall avoid all the inconveniences that do grow by the raising of moneys, because we shall never raise them; and we shall avoid all the inconveniences that do grow by the not raising of moneys, because other nations shall not raise theirs. Besides for this remedy there is alleged the example of former ages, wherein it appears that in many treaties with foreign nations our kings did contract for the mutual standard of their moneys. But however the propositions be, specious and frequent, yet, of all other remedies, if it be thoroughly examined, it will appear the most difficult, or rather impossible to be effected." He then gives certain reasons, and goes on: "But suppose it was possible to draw all those countries to a certain contract, what would be the use of it? I did, in a former chapter, observe that most countries, and particularly France and the Low Countries, do seldom or never raise their moneys; but when people by custom and general use have raised the money beforehand beyond the publick declaration, and the State is forced to follow the people, whom, in this case they do not master, to what end is it then to contract with those nations for that which is not in their power to observe? And that which is alleged for the course of contracting, with foreign nations, out of the example of former times, doth clearly convince the vanity of this proposition, for it is manifest, as I have showed in former chapters, that notwithstanding these contracts, the money was continually from time to time raised"—Rice Vaughan's article has, I think, merely a literary interest. The state of things, politically and otherwise, is so wholly different now from what it was in 1675, that it is impossible to cite then-existing difficulties as appli-

cable to our present question. He and his contemporaries would have thought the making and maintenance of a postal convention, a copyright convention, an extradition treaty, a Zollverein, quite as impossible or fruitless as a treaty against "raising of moneys;" yet all these things have been done, and done successfully, in our own time. But even the contract which he thought it so impossible to maintain would be easier to maintain now, though still most difficult. You have not, I think, rightly apprehended what that contract was, and how totally different it was from that which I propose. Your extract relates not to the question of a fixed ratio between gold or silver at all, but to the fixed standard of the metals which were used as monies, that is to say, that the alloy should be so much or so much, and the weight of the coins so much or so much, not that this or that metal should be used. That is the meaning. It was recognised at that time, and always understood when monies were talked of, that the two precious metals were the monies that they meant, not the particular metal gold, or the particular metal silver, though silver in one country, perhaps, and gold in another, was the metal ordinarily used. Vaughan is speaking of the foreign *coins*, which, as you know, were commonly current in England, and it was obviously important to Englishmen that they should be of the weight and fineness recognised by law; whereas it was notorious that both here and abroad coins were frequently deficient in one or the other or both. "Raising of monies" was causing them to pass for a higher value than their true contents indicated. I have known war made, even in modern states, for this *teterrima causa*. My remark on it is that one could quite well understand that by cupidity and bad faith, which were not infrequent in Governments in those times, an attempt should be made in many cases to over-value their coins, that is to say, to diminish, in the case of such and such a coin, its true weight and fineness; but it does not seem to me to affect the proposal that I have made, that is, that there should be a definite ratio agreed upon by all of the principal commercial nations between gold and silver. What has troubled people in former times has been the badness of coinage rather than the difficulty of an agreed ratio, the coins have been clipped, good coins have been issued, and the bad coins have remained and the good ones have left the country; but none of those evils would happen in the case of an agreement for a certain ratio. I see nothing there that at all militates against what I have said before, viz., first that the other nations would be willing to make such an agreement; secondly, that there would be no inducement to them to break that agreement, the only possible inducement being that of self-interest; and I have shown that self-interest would cause them to keep to it rather than to break it; whereas it is obvious that self-interest, or what they deemed to be self-interest, induced kings in those days to "raise" their coins, and thus put money into their pockets

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They could make their coins what they would, but they cannot make gold other than gold, nor silver other than silver.

5787. Then what have you to say with regard to Professor Stanley Jevons, when he makes the following observations. He says:—"The perpetual maintenance of this supposed convention is the only safeguard against the most serious inconvenience to some of the parties to it. The convention would resemble a chain, the breaking of each link of which would throw an increased strain upon the other links. There exist, indeed, a good many international conventions, relating to postal intercourse, extradition of criminals, copyright, and so forth; but in none of these cases would the breaking or suspension of the convention result in any ruinous consequences. There would be suspension of benefits rather than occasion of evil. But should war break out among some of the countries involved in the monetary convention, the probable effect would be to throw the mass of silver coin upon neutral nations. This might be done without any express breach of the convention, simply by the issue of paper money, a measure which we cannot pretend to consider unlikely, seeing that the chief difficulties of the present monetary situation arise out of efforts for the withdrawal of recent paper money issues?"—This last suggestion as to paper money is perfectly true, and I have met the objection long ago. There is no doubt, in the first place, that anybody could withdraw from the convention; in the second place, that a state of war might make it necessary for one or more, not to withdraw from the convention (there would be no longer for the time any question of convention with such a nation or nations) but to issue paper money as they have done heretofore. Then the question is, what would be the effect upon themselves and what would be the effect upon other nations, and in what would the case differ from the present state of things that we now have. The effect upon themselves would be that it would put them for the time, in fact though not in law, clean outside of the convention, as if it had for them never existed. It would do no more harm to themselves than it would now. The effect upon other nations would be, not as Jevons says, that silver only would be thrown upon other nations, but that whatever coin, gold or silver, or silver and gold, they were using, would be thrown upon the other bimetallic and monometallic nations. What would be the difference between such a state of things, and the same course of action in the present monetary status? If France and Germany went to war and chose to depart from their present system, it might be that they would go to an inconvertible paper currency. The gold that is used in their money would be thrown upon the gold-using nations; if it is a harm to the gold-using nations to have the gold thrown upon them, the result of which would be nothing but an increase in price, that harm would be suffered. The silver would go to silver-using nations if any existed; that is to say, it would go back to Mexico or be thrown upon India; one does not know where it would go; but the gold would go to the gold-using nations and the silver would go to the silver-using nations. I do not see myself that any great harm would happen, but most certainly no greater harm would happen under a bimetallic convention than under a monometallic system, but rather less. So much for that. When Jevons speaks of the strain that would be put upon the others, no doubt there would be a strain if all nations but one retired from a bi-metallic convention, one nation or group of nations; that we know by experience already. We have seen that France and the Latin Union were left alone in their bimetallic condition, in the face of gold and silver-using nations. As I have said before, when I was examined on this subject, I do not think, and very many people in France did not think, that any harm would have been suffered by them; but, at all events, they were afraid of it and they gave it

up. But that is the case of one nation left alone. To make Jevons' fear at all germane to the matter, you must have all nations withdrawing but one; because, if France for 70 years, and with a most extraordinary difference in the production of gold and silver, could maintain a bimetallic law, much more than could two nations, and if two nations could do it, very much more could three, and still more could four, in greater proportion.

5788. I believe you have something to say with regard to the disposition of the Netherlands to join a convention?—I knew nothing before about the Netherlands; I knew what was the disposition of the United States; I could form a very good idea of what was the disposition of France, and of the Latin Union, except Switzerland of whose present disposition I know nothing, and of Germany too; but I happened to meet Mr. Pierson the other day, the Governor of the Bank of the Netherlands, and Professor of political economy there (whom I have already quoted), and he tells me that the opinion is very strong in the Netherlands, and very widely spread, in favour of the bimetallic agreement. I saw also, a few days ago, a charter which has been granted to the Bank of Amsterdam by the King, and there the charter reserves to the Government the power of enforcing upon the Bank of Amsterdam the taking of gold and silver at a mint price, if a bimetallic agreement should be entered into, and if such enforcement should be made upon the chief banks of the other nations, parties to the agreement; so that it seems it is not only desired by the people, but in contemplation by the Government of that country.

5789. (*The Chairman.*) You have spoken of the tendency of the depreciation of silver in relation to gold to stimulate production in the silver-using country, as, for example, in the case of wheat from India. Suppose you had a fixed relation between silver and gold, that stimulus would still exist in the case of a wheat-producing country, with a depreciated currency?—With a paper currency you would say.

5790. With a paper currency; I was thinking of Chili?—Certainly it would, and since I spoke of that, I learn that, much to the displeasure of some interests in that country, the Government of Chili has passed a law for the gradual redemption of their paper money and resumption of cash payments, calling in and destroying \$100,000 a month from the 1st of January last, till the issue be reduced to \$18,000,000. In 1887–88 \$1,200,000 will be spent in silver, and \$1,500,000 in following years, to be deposited in the mint against legal tender notes. The Act was passed March 14, 1887.

5791. You said in your evidence, in answer to question 3054, with reference to the risk of fluctuation being guarded against by arrangements made by the merchants with an exchange bank, that the arrangement made by the merchant with the banker only transfers the risk; some one must suffer. Well, suppose that the banker could arrange at the same time, or knows that he could arrange at the same time, a reverse transaction; in that case nobody need suffer?—I must again say that I am talking of what I do not personally know. The point arose out of questions relating to India, with which country I have little commerce. In the trade of Chili, which has also a depreciated currency, and with which I am familiar, the same operations would also be possible if the banks there were exchange banks, but as a matter of fact they are not, and the merchants have to bear each his own risk, guarding himself as best he can. In the case supposed by you, if or when it occurs, the banker need not suffer.

5792. Nobody need suffer in that case?—No; that does not follow, because the risk must be there, and must be paid for, in meal or in malt.

5793. But surely, supposing that I know that A has to pay 1,000*l.* in gold in London on a particular day, and has to arrange for that, and B has to receive 1,000*l.* in gold in London on a particular day—the

same day—and has to arrange for that, it does not matter whether gold goes up in relation to silver or goes down in relation to silver, the transaction will be precisely the same. I do not quite see in that case where any risk exists?—The risk to the merchant may be compared to that of the perils of the sea, which you do not annihilate by opening a policy of insurance. The banker makes an arrangement with him and charges him so much for it. At the same time, according to your supposition, the banker makes an arrangement with another merchant, on whom a like risk presses, and frees him, as he freed the other, from the risk of fall or rise in the exchange, taking the two risks upon himself, and exacting a compensatory turn in the exchange from both; and that is how the banker lives. But you think that he has cancelled the risks, and runs none?

5794. The only risk to the bank might possibly be, in that case, the solvency of the person who had agreed to make the bank the future payment?—It would be so in that one case, but the rate may fluctuate every moment.

5795. How, in that case, is there any risk of fluctuation? The same sum has to be received and paid in the same metal on the same day?—Business could not really be done in that way. The bank must be paid for relieving the merchants of their risk.

5796. Yes, but is not the one risk exactly a set-off against the other? Are there not two contrary risks which exactly balance one another?—There are in the case you suppose; but then as between A and the bank, and B and the bank in each case a risk has to be got rid of and paid for; they put that risk upon the shoulders of the bank, and the bank may be willing to take it, but if it does it must certainly be paid.

5797. But do they put any risk upon the shoulders of the bank?—What is to them a risk.

5798. Do they put any risk upon the shoulders of the bank if the risks are equal and opposite?—What to them is a risk, and, except in your supposed case, is also a risk to the bank.

5799. Yes; but then you said that some one must suffer. I cannot quite see how anyone suffers there?—Yes they do, because they have to pay a premium to the bank for taking upon itself what, by your present example, indeed, is no risk to the bank, but which is in any case a risk to the person paying the bank, for which he has compounded.

5800. Your expression was “that is only transferring the risk; someone must suffer.” Of course I understand your view, that however small the risk, or even if the risk is nothing, the banker will charge something for being at the trouble of the transaction; but I did not quite see how any risk was transferred if the bank can so arrange as that it has two reverse operations at the same time?—If there were no risk the banker would charge, as you now say, some slight commission for the trouble of the transaction. In point of fact, the bank charges a very considerable sum, because, to each person who has to come to the bank there is a certain but an undefined risk, and the bank either will or will not take that risk and arrange it. But at the moment of its making the arrangement with the first man it has taken his risk on its shoulders, and if exchange goes against it, it makes a real loss. In the meanwhile it may possibly have made an exactly opposite arrangement with another man, but it may not. The exchange may have altered in half an hour, and the transaction may leave a loss in both cases. Sometimes the bank will not take the risk at all from either, as I think I mentioned in one of my answers. When I gave the answer first, I told you, or I told the Commission at the time, what the amount of exchange was that the Indian bank charged; when I spoke of it again a few days afterwards I had to say that at *that* date the bank would not take the risk on any account whatever.

5801. I was not in the least questioning that in many cases there was risk, and the bank would take

that risk, and would charge for it; but what I did not quite understand was your view that in all cases, in the case of every transaction, there must be risk. It struck me that there were some cases where there would be no risk?—There are some cases in which, by the good management of the bank or the fortuitous demand and supply on both sides, the bank itself may on balance have incurred no risk, but the merchants A and C have both of them incurred a risk upon their shoulders which they have been able to transfer to the bank. Those two risks, by your hypothesis, have neutralised one another; but that would show no gain to the bank when it came to make up its accounts at the end of the year, for whereas it had often made a loss, and whereas it had often made a gain, that time there would indeed be no direct loss, but there would be no gain. Business, as I said, could not be carried on in that way. An equal transaction such as you imagine, though showing no loss in itself, is a dead loss to the bank. Take the case supposed in Q. 5793. The bank, it is true, pays and receives R. 10,000 and gives and takes a bill for 1,000*l*. Why should it do so? It is there for the very purpose of making gains in such transactions and to take contrary risks, balancing one another would be to stultify itself and starve its business. What really happens is that it takes a risk from the first merchant, and charges such an exchange as it hopes will give it a good profit. Its risk is that the exchange, which varies every hour, may fall away from it, and that future transactions may reduce the other to the blank you suggest, or to a loss. You must bear in mind also that as to the merchant's risks, he may expect to arrange with the bank but may not be able to do so. The exchange may vary while he is thinking about it.

5802. Yes, but if, as a rule, owing to the course of trade between the two countries, the bank can arrange counter transactions, so that there is only a comparatively small balance left over in relation to the total of transactions, the risk undertaken by the bank would be on the whole small?—But the profit gained by the bank is, on the whole, considerable enough for the bank to live by it, and it must, as you say, be commensurate with the risk.

5803. That would depend on the charge they make, and I do not quite see if the risk is small why competition in that as in other things should not make the charge small also?—You see small is a relative term. Whatever it is, it is that which measures the risk, and, as I said before, the banks live by it. If the risk were small, competition would regulate their compensation for it, as it does now. But their compensation is sometimes very large, therefore so must the risk be. I am speaking now of what I do not practically know, because I am not an Indian merchant, nor am I in the sense of residing in South America and doing the business myself as a South American merchant; but from what I hear from my partners it is a really definite and certain risk (though its amount is indefinite and uncertain) which is incurred by the merchant and borne by him. In the case of India there is the same risk which is or may be taken over by the banker, and the profit of the banker exists in the clever management of that branch of his business. The bank receives a rate of exchange from this man and a rate of exchange from that man, on both of which he hopes to make a profit, and by the manipulation of those two customers, whether it is on the one side or on the other, it minimises its own risk; but risk there certainly is, for the exchange is constantly varying, and those exact compensatory transactions which you imagine and which would annul both risk and profit can seldom exist, and then only by accident. My point is that, if there is a risk in a paper-using country where (barring further excessive issues) the exchange depends on the more or less demand for bills, much more must there be a risk in a silver-using country where the exchange is liable to sudden fluctuations caused by the fall or rise in the gold price of the metal.

5804. There is one answer you gave that I should

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like to ask you a question upon. You were speaking, in question 3069, of the stimulus given to the growth of wheat owing to a decrease in the initial cost. You say that "so much has it done so that I may safely say that if the exchange" rate rises to 36*d.* or 40*d.* no wheat would be grown for export. Now, I do not quite understand why you fix that price?—I asked my partner, Mr. Low, whose paper you have before you—I asked him what sort of rate would make a sufficient alteration to stop the growth of wheat for export, and he said, "I should think 36 or 37 would quite suffice; I do not think there would be another acre grown."

5805. That would depend, would it not, upon the condition of things in other wheat-exporting countries, because the theory is that the fall in exchange stimulates the growth of wheat, and at the same time produces a fall in prices in the country to which the wheat is exported?—Yes; but it is not the fall in exchange which has any *direct* effect on the prices on this side. Prices are lowered both by the temporary lessening of the initial cost of production which enables the recipient of the wheat to sell cheaper, and by the increase of production which breaks down the price by competition.

5806. Well, would not the contrary transaction—a rise in the exchange—have a contrary effect and produce a rise in prices, and if there was a rise in prices would it not become profitable to you to export wheat produced at a greater cost?—If there was a rise in prices, the rise in prices would take place because of the non-competition. If India and Chili ceased to send wheat to this country, of course the natural consequence would be that there would be a rise in prices in this country, and a point might be reached when again, notwithstanding the rise in sterling value of the cost of production, it might be profitable to grow wheat there; if, for example, it got up to 60*s.* again.

5807. If the proportion of wheat exported from Chili as compared with the wheat exported from India and elsewhere was large, that would have a tendency, would it not, to bring prices up, and therefore, to make production in Chili profitable, at a cost of production which would not make it profitable before?—You mean, I think, if I understand you, this: if the production of Chili were sufficient to make an important difference to the grower of wheat in England, or to the grower of wheat in other countries, then the price here would so rise that the Chilian would be again able to resume the growth of wheat. Yes, I suppose it would be so. It is therefore extremely difficult to fix a particular exchange that would make a difference.

5808. There is a question I should like to ask you upon your answer to question 3080. The question is this: "Let us consider the case of a silver-using country which is isolated, and not trading with a gold-using country at all. There, if the currency depreciates, the manufacturers are stimulated"?—"Yes." Why is that the case if it is not trading with a gold-using country?—There I am talking the language of other people rather than my own, but I imagine it to be this, that the Indian sending goods to China knows exactly that the value of the silver in China will be to him the same as the value of the silver that he has got in India, it will differ only by the fluctuations of exchange consequent on supply and demand. If he sells for a certain number of grains of silver he will get that silver in his own country, which will buy him the commodities that he desires. If, on the other hand, he has to deal with a gold-using country, there is no fixed relation between the two metals.

5809. Has that answer relation to a silver-using country trading with a silver-using country?—Yes, I mean that.

5810. It speaks of its being isolated; I suppose it meant to refer to its internal trade?—I do not know why the Chairman used the word "isolated"; if he meant to refer to the internal trade of the country, I misunderstood his question. If it had no trade with

gold-using countries there would be no stimulus caused by the fall of silver in terms of gold.

5811. Supposing it is a silver-using country trading with a silver-using country, the stimulus given arises from a totally different cause and is of a totally different character from the stimulus you have spoken of to a silver-using country trading with a gold-using country?—Certainly. I should say it is not a stimulus at all; It is a different thing altogether from that that we spoke of just now.

5812. I do not see quite why it is a stimulus at all if it is a silver-using country trading with a silver-using country. Whatever depreciation there is, is a depreciation in both alike?—Yes, it is exactly the same, in both.

5813. Why is there more stimulus than if both of them stood still?—It is exactly the same as England dealing with Australia. You send your goods there and you know you will get so many shillings, that is to say, so many twentieths of a gold piece, and the currency being the same you know what you have got. I have said that I think the word "stimulated" in Q. 3080 was incorrect.

5814. If there is a depreciation it will be in both alike? Why should that give more stimulus than if both had remained without any stimulus at all?—I do not think it does; except as compared with the dealing between countries that have not identity of money. I cannot see myself that it is a stimulus in any other sense than that. They are able to deal with more ease of mind. Their trade is diverted to the silver-using country, because they know what they can do with it, whereas they are afraid of dealing, as I think I have before said, with the country having a different money.

5815. I do not think that is clearly brought out by the answer. I understand you to be speaking of the comparison between a silver-using country dealing with a silver-using country, and dealing with a gold-using country?—Yes.

5816. With reference to that point, that high prices have a tendency to stimulate trade, and low prices to depress it, is not that likely to be very temporary. If high prices stimulate trade, are not they likely to lead very rapidly to over-production, which will cause a reaction?—Certainly they are likely to produce a reaction if trade is stimulated to the point of rash speculation; and therefore it is that I do not speak of high prices as being in themselves a good. All that I have said really comes to this, that a condition of continual falling of prices is depressing to the trader and depressing to trade.

5817. Of course a large business at small profits might be more profitable than a small business at large profits?—Certainly, small profits will do just as much as large.

5818. And low prices may bring into the market so many additional consumers as to make the total trade done larger in volume and as profitable to those engaged in the enterprise?—It might; but there again if you mean altogether low prices it comes to the same thing; it is the falling condition of trade which is hurtful. I speak historically rather than theoretically there; as a matter of fact we know it has been so, we know that a period of falling prices has been usually coincident with short supplies of the measure of value, and with depressed trade.

5819. In questions 3508 and 3509 you are asked: "Is not the distinction really to be found in this that in the case in which there is a forced currency running side by side with gold, gold is wanted by those who have to make foreign payments, whereas in a truly bimetallic country it is a matter of perfect indifference to the inhabitants of the country, whether they take gold or silver for their purpose." And your answer is "Yes." Well, that would not be so, would it, unless the country in which the payments have to be made is bimetallic and at the same ratio as the country which has to make them?—Certainly, but that I have fully

gone into afterwards. (Q. 4588.) They must be of the same ratio or else it would seem very greatly to import to the remitter whether he remitted one metal or the other.

5820. I should like to ask you one or two questions about the demand for gold arising from Germany changing her monetary system. Do you take the same view as Mr. Nicholson that the gold which one has to look to in the country that has a gold standard as increasing the volume of the currency is only that which is coined or which goes into bank reserves, and therefore is in the same position as gold actually coined, excluding, I mean, gold that is hoarded or which is used for the purposes of the arts?—I think I have expressed in a former answer that you may consider all those things, the hoarding, the use in the arts, as in some sort a relegation of the gold to the mines, the difference being that the original mine is difficult to be worked; the mine of hoarded money is easy to be worked, and in proportion to the ease in which the gold or silver in hoards or in the arts is attainable, so is that indirectly effective in the question of price, but that I think which really is the main regulator of price is the quantity of gold or silver presently coined or coinable.

5821. Therefore, so far as the gold which was required by Germany and by Italy came out of hoards, that would make no difference with reference to the volume of the currency?—I should think not.

5822. So far as it was diverted from use for the purposes of the arts also, it would make no difference?—In perhaps a differing degree it would be so. There has been, I think, as matter of fact, no such diversion; one can see no evidence of it.

5833. Then, if after Germany had supplied itself with gold, the total currency of the world, whether in gold or silver, was as great as before, you would not expect that to produce any effect upon prices, would you?—Yes, I should, in gold-using countries; because the price is the relation of the mass of gold to the mass of commodities measured by the gold.

5824. Not as to the gold, because Germany and France were still using silver; therefore, I say if the total volume of gold, plus silver, that was either in the form of coinage or in the form of gold or silver in the bank reserves, was as great as before, you would not expect any change in prices, although the distribution of the gold and silver amongst the civilised countries might be different to what it was before?—If the only change that took place was that Germany and Italy used gold, whereas it had theretofore used silver, and the gold, though taken away from its occupation in other countries, was replaced by silver which was to do the work which the gold did there before, there would be, I suppose, no change in prices on that account; but in point of fact that was not so, because, in the first place, Italy—that was not a very great quantity, but in Italy it replaced paper. It was the converse of that which Mr. Birch asked me about just now, that is to say, a nation that should leave off the use of the metallic currency and take to paper, whereas this left off the use of paper or diminished the use of paper and took to a gold currency. Then again, silver did not take the place in the other countries of that quantity of gold that had been taken away from them. Silver, to the extent that I mentioned in an answer to one of Mr. Birch's questions before, lies unused in many parts. The mints of Germany and France are now closed to silver, which, if opened again, would put more into the category of coin or coinable metal.

5825. But did not a large quantity of the gold go from France to Germany, in 1873, at the time of the demonetization of silver by Germany?—At the time of the demonetization, yes.

5826. And in France was not that, to a considerable extent, replaced by silver?—I take it, it must have been so. I have not before me the figures of the replacement, but I think it must have been. As to the movement of the gold, in part it was a movement direct of gold, but a great deal of it was done by

bills, of course, and by claims of France upon other countries which they had to satisfy to Germany by delegation from France.

5827. Of course that would make no difference in the volume of the currency?—That would make no difference at all, but so far as it was the actual movement of gold, that must have caused a contraction of the currency in France, and that contraction of the currency would doubtless have been filled up by silver coming in, so long as the mint was open.

5828. And so far as it was filled up by silver coming in it would make no difference?—Not at that time. France would feel the contraction of the gold measure as much as we should, except so far as silver would supply its place. When the mint was closed to silver the gold would alone bear whatever fluctuation might happen. But at first it would make no difference to France.

5829. Or to the total currency of the world?—Not so far as silver was used. Silver was used in France instead of being used in Germany, that was all. So far as it went, a great deal was still used in Germany, but so far as it was a mere exchange of the yellow metal for the white metal, of course it made no difference.

5830. But where did the gold go from to Germany?—A great deal of it was taken out of our vaults here, but that must only have been because England owed it in some way or other. It caused a great multitude of fluctuations of the rate of discount of the Bank of England, of which I spoke last time.

5831. Is there any reason to suppose that our currency, including in that the coinage and the reserves, is less than it was?—It is very difficult to answer, but it is said that it is; that is to say, it is said that there is less gold in this country than there was; as to the gold in the Bank of England, one knows perfectly well how *that* is. I think in 1876 there was 30,000,000*l.* odd of gold; now there are 23,000,000*l.*; but the slackness of trade has no doubt diminished the necessity for the use of the metal; that is, they have reacted upon one another.

5832. I was rather looking upon the effect in and subsequent to 1873, to see if one could ascertain whether the total currency of the world had become diminished, or whether the distribution of the different precious metals had really been altered?—I think, taking into account the increase of population, and the increase of commodities, which, after all, fills the other scale, that the active money metal of the world has been diminished. Silver, as I said in former answers, lies unused, but it is very unlikely that the silver portion of the world's currency should have diminished. I do not see how it touches the matter before us to ascertain whether both the measures of value in the world have lessened in quantity. My contention is that gold is lessened in quantity for the work it has to do, and that, as gold is alone our money, *that* is what touches us nearly.

5833. (*Sir T. Farrer.*) But the quantity visible in the reserves of the banks of the world has, on the whole, largely increased?—No, I gave you the figures. It was 30,000,000*l.* odd in gold, in my time, when I was Governor of the Bank of England; it is now 23,000,000*l.*

5834. (*Mr. Birch.*) I think the gold in the Bank of England has not increased?—No, not at all.

5835. If you take the Bank of France, the gold in the Bank of France in 1873 was 27,000,000*l.* sterling; it is now 52,000,000*l.* sterling?—Yes, but you must remember that the Bank of France was not everything in France, as much as it now is. I wish to explain how that is, so far as I know. I am not so well acquainted with those matters, but I am told that the Bank of France has very much more in the last decade gathered to itself the gold of the country; and the other banks in France, owing to the use of cheques and so forth, do not keep the same amount of gold. I do not give that at all of my own knowledge.

5836. In silver she held, in 1873, 6,000,000*l.*; she now holds 45,000,000*l.*?—Yes.

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5837. And the whole of that is issued; it is represented by paper; it circulates exactly the same?—Yes, that is what I argued; it is absolutely in use, that is, and had been in great measure I am told withdrawn from the provinces.

5838. But surely you are aware that there is any amount of silver now in France?—No doubt there is, if you say so, but that is in people's pockets; but what I mean is that in banks and in the tills of merchants and in the tills of traders, I am told that there is not nearly the same store of gold and silver as there used to be.

5839. (*Mr. Barbour.*) You think the tendency of the modern system has been to accumulate money in the banks; consequently you may see more in the banks, but it does not follow that there is more in the country?—In the chief banks the tendency, I think, has been to accumulate.

5840. And I think there has been a tendency to use notes more largely?—Abroad, certainly.

5841. And, I suppose, that would be a reason for more gold appearing in the banks?—As Mr. Birch says, the silver is represented by notes, which may be said to be actually the specie current in the form of paper.

5842. (*Mr. Birch.*) You were talking about notes just now. Supposing that France and the Latin Union came to some arrangement for the issue of notes, internationally between those countries, would you advocate our entering into the union?—Certainly not, unless based upon the precious metals; and I do not see my way to any international arrangement for so basing them. In any case I am not at all inclined to enter into any arrangement for an inconvertible currency, such as that indicated.

5842a. Not even if there were a complete accord of nations?—Inconvertible currency would obviously not be affected by any possible accord of nations; it is a wholly different matter, because, if you have an inconvertible currency, unless you have an absolute accord between all nations whatever, and with everybody to whom you may have to remit, you would not at all regulate the value of the metal which you would have to remit to such a country as was excluded. It would not help you in the matter of remitting to China.

5843. But supposing you had accord as far as Europe is concerned; and, say, that a note of the Bank of France, for instance, was equivalent here to so many pounds sterling, and a note for so many pounds sterling was equivalent to a note for so many francs in France, they might be interchangeable on a basis if you secured the accord of nations?—You mean upon specie, do you not?

5844. I mean a pound sterling in paper should be recognised for so many francs in France, and a note of the Bank of France should be worth so many pounds in English notes here?—But it must be either convertible or inconvertible.

5845. Well, inconvertible, or whatever you like to call it, a certain arrangement has been made by each country, and those notes are circulated freely in each country?—My answer is, that if they were to be inconvertible notes it would be absolutely impracticable, and bad policy if practicable.

5846. Naturally notes would be a much more convenient mode of discharging international obligations than specie, and it is conceivable that France, Germany, and other great nations of Europe might combine to say that in each country their notes should be reciprocally current at such and such a ratio. Would you advocate that England should enter into such a combination for the general benefit?—What I desire is an agreement between nations that the metals which are recognised in all the civilised countries of the world as money, should be used as money in those agreeing nations. There can be no question of *ratio* between inconvertible notes nor between two promises to pay the same thing. The idea of ratio is lost, though it is conceivable that a

nominal par of exchange should be established even between inconvertible notes issued by two countries. But if behind your question there is the meaning which your use of the word ratio implies, that the contracting countries should mutually recognise the two metals, at a fixed ratio, as the basis for their interchangeable notes, then the plan would have its advantages; but the world is not ripe for it, and, I doubt, never will be. It would be an international development of Ricardo's plan of deposit of bullion on which notes should be issued. But international confidence is not sufficiently developed to allow of notes issued on deposits in a foreign country becoming legal tender in neighbouring nations. Imagine German and French notes legal tender in England, and a war breaking out between those nations. I fear there might be a possibility of either nation, under stress of war, laying, at least temporarily, hands on the specie.

5847. (*Sir T. Farrer.*) I think you said in one of your former answers that the present state of things makes it dangerous for gold-using nations to speculate in silver-using countries. You have, I think, some particular instances that you wish to mention:—Yes; I stated before that, as a general rule, it was dangerous to attempt industrial enterprises in silver-using countries (except on a gold contract), but I had no particular instance to give you. Now I will mention that the Mexican Railway report is just published, and the loss on the difference between the price of silver as it was computed—it is only a computed price like that of the 2s. to the rupee; it is 4s. to the dollar—the loss is something between 90,000*l.* and 100,000*l.*, that is, more than 46,000*l.* for the last half-year.

5848. The loss to whom?—The loss to the enterprisers; to those people who sent their money there to make the railway.

5849. The loss to English shareholders?—The loss to English shareholders.

5850. Who have to be paid in gold?—Of course they are paid in gold, when they are paid anything at all.

5851. But the earnings are in silver, and it is the turning of that silver into gold that causes their loss?—The silver is remitted hither and sold, and that is the loss.

5852. (*The Chairman.*) If the depreciation of silver has stimulated production there, may not that more than have compensated the railway company for the loss in exchange?—No, I think not; very far from it. Of course it would have some effect, and that effect is now beginning to be felt. The downward traffic of that railway, that is to say, the traffic in the goods produced in the country, is very much larger, but not as yet for export in any quantity. Very little wheat has been exported. Some sugar has been exported, and some other commodities; but the shareholders have had no compensation hitherto; the compensation may be in the happy future.

5853. But what I do not quite understand is this; if production is stimulated, then more, probably, is carried by the railway?—It is so; it is beginning in this year.

5854. You mean that it has not gone on to an extent sufficient to neutralise the fall?—It has only just begun this year, and there is no hope whatever that the stimulus can act so strongly and so long as to make the freight on the additional produce, whatever it may be that is attributable to this cause, anything more than a crumb against the whole loaf lost in exchange. The total increase in the freights of local produce carried by the railway in the last half year has been 10,900*l.* gross, say 5,000*l.* net, of which increase by far the greater part is due to the now settled condition of Mexico. What is that to a net loss of upwards of 46,000*l.*?

5855. Have silver prices risen in Mexico?—Not much; much the same as in India.

5856. (*Sir T. Farrer.*) But if gold is appreciated in this country the gold that is received here by the shareholders is worth more than it was?—Yes; to the extent that the gold that is received is worth

more, it is to the good of the recipients, but it is a very trifling benefit, and is nothing appreciable in comparison to a loss of 90,000*l.* or 100,000*l.* a year. Of course it is a very small compensation, a compensation that none of them perceive.

5857. Then you mean that the gold prices of the things that they buy in this country, compared with what they receive, have not fallen in proportion at all to the fall of the gold price of silver?—Certainly not; they may have fallen, but fallen from other causes, which causes would have benefited the shareholders all the more if their earnings had not been so mulcted by the fall of silver. That which would have been for their good, whether silver had fallen or no, cannot be counted as a compensation for the fall; but they have not fallen in that degree.

5858. That would depend very much upon what sort of things these particular people want to buy?—Oh, yes, but they are the ordinary things; they want to buy what everybody else does; they want food, and coals, and coats, and horses, and chariots, and other things. I am sure your own experience will not tell you that you buy all these things retail at very much less than you used to do.

5859. But the general statement of those who complain of the appreciation of gold has been that the prices of goods, and the price of silver, have fallen pretty well together?—Wholesale things?

5860. Wholesale?—Yes, they have fallen together; it may be because silver is a commodity like others, and silver has been affected in the way that others have been affected. It is impossible to say that one commodity shall have fallen exactly in the same way as any other, because there are many circumstances that affect the several commodities in different ways.

5861. Then, if the people who ought to have received this gold have not received what in commodities was of as much value as it ought to have been, it would have been for one of two reasons, either because the particular things which they wanted to buy have not fallen as much as silver has fallen, or because the profit has remained with the retailer by the way?—Some of it. But there is yet another very important thing. You must consider that whereas you speak of the gold which these people have received as having purchased more commodities than it did before, the fact is that some of them got none at all. The ordinary shareholders are all left without anything at all; it has gone to the debenture holders and to some of the preference. It is very little consolation to a shareholder who has received not a penny of dividends, to persuade himself that the sovereigns received by his creditors have a little more purchasing power than they had. It is a very common story now-a-days; the mortgagee devours the rents of the estate.

5862. I should like to ask you one general question. You were a member of the Commission on the Depression of Trade?—Yes.

5863. And that Commission came to the conclusion which I think is a conclusion come to by all the economists in all countries that have written upon the subject, that a good deal of the complaints we hear from traders and manufacturers arises from the fact that wages have taken a larger share of the whole production of industry than they did in former times?—Yes, but I should put it in rather a different way, a way which accords with all that I have said here, and which, I think, we found pretty well established before the Commission, that the wages are now taking a greater per-centage of the profits than they were before, because the fall in prices has not reached wages; has not reached individual wages.

5864. But are not the opinions of all the greatest economists and, I think, the evidence that was taken before your Commission, to the effect that long before the fall of prices began there was a process under which the wage earner obtained a larger share of the whole produce of industry than he did before?—Yes, he did; the pendulum was swinging that way.

5865. And that progress has been accelerated by the fall in prices?—I do not see how.

5866. Because wages have not fallen as fast as prices?—Yes; that is, the increase of the per-centage of their wages on their employers' profits has been increased by the fall in prices, because the other end of the scale has been touched, by the lessening of the profits; but that has neither accelerated nor positively increased the rise of the wages of the people.

5867. But, on the whole, independently of the fall of prices, one of the most striking phenomena in the progress of industry during the last 50 years has been that the wage earner has obtained a larger share of the products of industry and the capitalist less?—The pendulum has swung up in this way, but the counter swing is now in progress.

5868. Perhaps; but is there not apparent a secular progress independently of the rise and fall in prices. Does it not seem as if the wage earner was constantly receiving a larger and larger share of the products of industry?—Yes; and this was the cause, as I think I drew out from a witness at the Trade Commission. The conscience of the people was awakened in that respect; the wage earner was in evil case, and it became a necessity, not having anything to do with the fall or rise of prices, but owing to the greater knowledge of the condition of the labourer, produced by the greater practical nearness of the great towns arising from the existence of railroads, all men had the opportunity of ascertaining what was happening, and it thus became necessary to alter and improve the condition of the labourer. But this does not date from 1873, but from long before, as you say.

5869. And that is a secular change which has been taking place all over the civilised world, has it not? I do not know whether you have consulted M. Leroy Beaulieu's and M. Chevallier's works in France, Mr. Atkinson's "Distribution of Products" in America, and Mr. Giffen's and Professor Leone Levi's essays in this country. They all agree in this that there has been a secular change going on by reason of which the wage earner has been receiving a larger and a larger share of the whole products of industry?—Yes.

5870. I was going to ask you whether you do not think that some of the complaints that we have had about depression arise from the fact that the capitalist does not receive under that secular change as large a share of the products as he formerly did?—I think it is certainly the case that the labourer received higher wages, but as you have justly said, that secular change began long ago, and cannot have had much to do with the complaints of the capitalist, who was himself also doing very well while the condition of the labourers was improving, but who in the last 10 or 12 years has found the new causes of complaint on which I have been insisting, and the consequence of this is that there is less disposition to put capital into industrial undertakings, and that consequently it will be so much the worse for the wage earner.

5871. The change may go too far?—Of course it will be much the worse for the wage earner when it comes to that.

5872. (*Mr. Chaplin.*) I just want to ask one question about the price of wheat. Assuming the Indian exporter to get 2*l.* a quarter, or something like that for his wheat, before the price of silver had fallen, how many rupees could he get at that time for his 2*l.*?—He could get some 20 rupees. I am not so familiar with the exchange as to do that sum immediately, but he would get them at the rate of 1*s.* 10½*d.*, or something more perhaps.

5873. In round numbers nearly 2*s.*?—You may call it 2*s.* for the purpose of calculation.

5874. He would get 20 rupees in round numbers?—You may call it so. It would be really 21½, at 1*s.* 10½*d.*

5875. Now to-day he sells his quarter of wheat for 30*s.*; how many rupees will he get for that 30*s.*

Mr.
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Mr.
H. H. Gibbs.
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now, assuming that the rupee is now worth 1s. 4½d.? —He gets about 22 rupees; more accurately, 21·81.

5876. He would get about 22 rupees to-day?—Yes, and before the fall of silver he got half a rupee more.

5877. So that as matter of fact it comes to this, that while the price of wheat in England has fallen to 30s. a quarter, and the English producer has to accept that lower price, the Indian producer is actually getting, owing to the rate of exchange, more for his wheat than he did before?—Yes.

5878. The substance is the same, that the man gets more?—The Indian producer gets more, but not, perhaps, quite so much more as you put it in your calculation.

5879. But assuming that the calculation had been made exactly correct as regards the figures, the fact remains that although the price of wheat has fallen

very considerably since the price of silver fell, the Indian producer also gets more now for his wheat than he did before?—Yes; and you may add that the Indian producer having got more, he gets exactly the same amount of commodities for each rupee, so that it is an absolute profit to him.

5880. (*The Chairman.*) There is only one other question I have to put. You have given us your evidence, being one of the directors of the Bank of England; are the Commission to understand that you represent in any respect the views of the Bank of England. I mean in this sense that you represent the preponderating views amongst the directors?—No, certainly not. I think I am in a small minority; but it will be no new experience if the advocates of a sound and healthy policy have a long road to travel before they convert the minority in which they find themselves into a majority.

The witness withdrew.

Mr. S.
Smith, M.P.

Mr. SAMUEL SMITH, M.P., recalled and examined.

5881. (*Sir T. Farrer.*) You have no special evidence, have you, of the actual fact of a general fall in prices, except that contained in *The Economist* list and other similar lists?—No evidence. I have a general knowledge which all men of business have of the very great fall of the articles with which they are connected. I also know from my own personal knowledge of the heavy fall in the prices of land and houses, ships, factories, and indeed every form of property in this country.

5882. Have you any knowledge of the state of things in other gold using countries?—Not intimately.

5883. In America, for instance. You stated that there had been a great progress in America which there had not been in this country?—There has been a very considerable revival of trade in America in the last year or two.

5884. (*The Chairman.*) As to the fall in the price of ships, there has been an enormous increase in the tonnage of existing shipping between 1873 and 1885, has there not?—Yes.

5885. Then with the depreciation do you think that the shipping now is of greater or of less value than the shipping in 1873?—It would be difficult to give an exact answer to the question, but a friend of mine, who is largely acquainted with shipping, estimates the depreciation in the value of shipping in this country at 50,000,000*l.* sterling.

5886. Calculated on what basis?—Well, I presume from the the value of, say, a few years ago. Will you permit me to give you one or two facts within my own knowledge. Take Liverpool as the chief centre of the shipowning industry in England. The chief lines of steamers in Liverpool ply between Europe and America; the chief of these lines is the Cunard Company. The Cunard Company was taken over a few years ago from a private concern, and the shares were issued at 10*l.* The 10*l.* paid up shares are now selling at 3*l.* 10*s.* Take another instance. The Inman Company was a very prosperous line at one time; it sunk lower and lower, till at last it was broken up as a bankrupt concern last year, and the whole capital, amounting to 900,000*l.*, was found to be lost, and the borrowed money, mortgages, &c. had to be paid off at the rate, I think, of 7*s.* 6*d.* in the 1*l.* Take another line of steamers with which I am acquainted, the National Line. The shares, within my knowledge, stood, at one time, at 15*l.*, they were 10*l.* paid up. At the present time, if I am rightly informed, they can be bought for 2*l.* each. That is a sample of a large portion of the shipping property of Liverpool.

5887. Can you tell me what were the respective numbers of vessels trading between this country and America in 1873 as compared with 1885?—No, I could not, of course, offhand give you those figures. They can be got.

5888. But there has been a very large increase?—A very large increase.

5889. And if you have a very large increase in the number of vessels seeking employment without a corresponding increase in the amount of trade going, necessarily the value of shipping must fall, must it not?—Of course we are quite familiar with that fact, but we had a rapid and steady increase in the number of ships owned in this country from 1850 up to 1873 without this corresponding depreciation.

5890. (*Sir T. Farrer.*) And long after 1873, was it not; it culminated about 1880 or 1881, I think?—Yes, it culminated then.

5891. And there was nothing, perhaps, in the country in which there had been so great an increase or so great an expansion?—I would partly agree with that.

5892. It went on after other industries had begun to flag, did it not?—I will, undoubtedly, own that over-building and over-stocking of the market went on, but that does not adequately account for the enormous and excessive depreciation.

5893. And there is probably no property in the country which requires such a constant addition and such a constant watching, and such a constant expenditure of money upon it to keep up its value; is not that the case?—Quite.

5894. And a ship which is first-rate to-day, may, by reason of some improvement, fall into the second rank to-morrow, and become of comparatively little value?—Quite.

5895. Well, all those circumstances tend to very great fluctuations in the value of shipping, do they not?—I have been acquainted myself with five or six periods of depression in shipping, and I should think none of these lasted more than two or three years. None of them have been at all equal to the present depression in virulence or the length of time which it has lasted; in fact, shipping has passed through the same process as every other trade in the kingdom. The recent depression in all of the trades has been much more acute and much more long continued than any other period of depression that I can remember.

5896. (*Mr. Birch.*) I want to ask you one question on that point. Previous to that period you had not the enormous competition that you have now from Germany, particularly in the trade to New York. There are now three or four German companies started which are running in competition with ours at lower freights?—Probably there is more competition, but on the other hand, we have had less competition with America. In my earlier years there was great competition with the United States, and a large part of the American trade was done by American vessels in competition with the English.)

5897. (*Sir T. Farrer.*) Then I will go back to what I was asking you before. You say that you know that most kinds of property in this country, or

a great number of kinds of property in this country, have fallen in value, and you say that you do not know so intimately what is the state of things in America?—No.

5898. Did you say there has been a revival in America; and that there is progress in America which there is not in this country?—Yes.

5899. Well, America is a gold-using country, is it not?—Except for the 4,000,000*l.* sterling of silver which they coin every year under the Bland Bill.

5900. And therefore, if scarcity of gold or depression of gold prices were the cause of the general depression in trade, you ought, so far as that cause is concerned, to find it in America as well as in this country?—Well, the reply that I would give to that is that America being a large, progressive, new country, has many elements of progress which an old country like ours has not got, and it would be a foolish thing to attribute all changes of trade in America purely to currency. I should never do anything of the kind, but I would say that if you take the period in America from 1873 onwards till now, they have had a much larger period of depression during that time than they have had in any previous period in America.

5901. And do you attribute that to the state of the currency?—I attribute that largely to the very heavy fall in prices that took place after the civil war, and to the resumption of specie payments which, for several years, brought about great suffering in America during the period when prices were falling.

5902. Was there not a tremendous inflation and time of speculation in America subsequently to the civil war?—Certainly.

5903. Probably greater than any that has taken place in this country?—Probably. One reason was, as you know, that the dollar was depreciated at one time so much that it took 250 paper dollars to buy 100 gold dollars.

5904. There were a great many causes which it is not worth while going into, but there was a period of very great speculation in America, and a very severe relapse?—Certainly.

5905. And since then there has been a very considerable recovery?—Since then there has been a very considerable recovery, especially the last few years, but I would never venture to say; indeed it would be a very foolish thing to say that the sole causes of all movements in the trade of a country are currency causes; that the sole causes of prosperity and depression are connected with the currency. He would be an extremely ignorant man who would make such an assertion as that, but what I do say is that a contraction of the currency, or an appreciation of the currency spread over a long period of years, and causing a long continued fall in prices, as has been the case in Great Britain since 1873, is very disastrous to a country, and causes great suffering to nearly all classes in the country. I say nothing more than that.

5906. If we are to look for evidence of what is called appreciation of gold, that is to say, to a fall in prices due to a scarcity in gold, we ought to look beyond this country, ought we not? I am now speaking without reference to the question of depression. I am speaking only of the evidence of the fact that prices have fallen in consequence of a scarcity of gold. If that is so we ought to find that, ought we not, in all gold-using countries?—Yes, I think so, and I think in all gold-using countries, as far as I know, there has been a great fall of prices.

5907. Do you know whether there has been a great fall in prices in America?—Yes, I do.

5908. But I mean one that has not been recovered from?—Yes, prices in America are much lower now than they were 10 or 15 years ago.

5909. Are wages lower now in America than they were?—I could not answer that question.

5910. Because such evidence as is open to us in the commercial newspapers shows that they are quite as high as they ever were, and the people are as well employed?—Yes, the people are well employed

just now, and the rate of wages is good, but the price of cotton, with which I am more immediately connected, has been very low in America for the last three years. The price of corn we all know has been so low that the cultivators have been hardly able to go on growing wheat.

5911. Do you know anything at all about the price of land in America?—I am not able to answer that question.

5912. Probably if you took the period since 1873 the price of land has very largely increased, has it not?—Well, the great increase of population always raises the price of land, especially in the neighbourhood of cities.

5913. What I wanted to get at was that the evidence drawn from *The Economist's* figures, on which so much reliance has been placed, is rather an imperfect induction to rely upon with reference to a general fall of gold prices?—I think they are perfectly correct. As far as England is concerned, they correspond with my own experience.

5914. (*Mr. Birch.*) What proof have you of the contraction of the currency to which you have referred on several occasions; what evidence is there of a contraction of the currency?—That is a very large question, and it would require a speech to answer it.

5915. Can you give me any indication?—Well, I would have to go over the ground of most of my previous examination, but I am quite willing to do so if you wish it. You will not see in England any scarcity of currency. I explained that already by stating that wherever you have small supplies, very small supplies of money coming into existence for several years, prices fall and adapt themselves to the smaller supplies, so that there remains as much currency to transact the business of the country at the lower range of prices as there was at the higher range of prices. The two things adapt themselves mutually. But as to the actual fact of the amount of money available for currency, I would make this reply: during the prosperous period of trade which lasted from 1850 to 1873, we had coming into existence every year an average of 25,000,000*l.* of gold and 10,000,000*l.* or 15,000,000*l.* of silver, practically about 40,000,000*l.* a year of the two metals, which was all available for currency in some part or another of the world, because the mints of many of the countries in Europe were then open to coin silver as well as gold, so that virtually there was 40,000,000*l.* a year of new money, as it were, pouring into the world, and being rapidly converted into coin, subject, of course, to a deduction for what was used in the arts. Well, since 1873 that volume has been greatly restricted; the gold supplies have fallen off. They have only averaged about 20,000,000*l.* a year. Silver has been demonetized, or at all events is no longer coined as money throughout Europe, and out of that 20,000,000*l.* a year of gold, one-half at least is consumed in the arts, and disappears altogether from use as money, and of the other 10,000,000*l.* that remains, India takes 4,000,000*l.* upon the average, reducing the total amount available for Europe, America, and the Colonies to 6,000,000*l.* a year. That is altogether too little. And during that same period several countries that were previously upon inconvertible paper have been filled up with coin which has been drawn out of the stocks existing in the other countries of the world. These various causes have really very much reduced the amount of available currency since 1873.

5916. I mean in this country; in England you do not know any scarcity of currency?—No, I would not say that it is visible.

5917. (*Mr. Chaplin.*) In reference to the price of land in America, you have no knowledge, I understand, of your own, that there has been any increase in the price?—My impression would be that in Manitoba and the wheat-growing countries generally, there has been a reduction in the value of land, because wheat can scarcely be grown at a profit; it can scarcely be grown so as to cover cost at present prices.

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5918. You have given us some instances of the great fall in the value of shipping property. Can you give us any instances of the depreciation of any other kinds of property that you are acquainted with?—Certainly, I can give several. If you will allow me, I would be very glad to give you two or three samples of this immense depreciation I have spoken about. I will give you one in Manchester, the sale of a large concern that took place in Manchester a few months ago. The firm was R. Smethurst and Company, of Chorley, a very large spinning and manufacturing concern. The head of this firm was high sheriff of the county a few years ago, and greatly respected. Their property was valued by a professional valuer some 10 or 12 years ago as worth 144,000*l.* About six or seven years ago, after Richard Smethurst died, his capital became a claim on the concern, and the firm, consisting of his brothers, became insolvent, and met their creditors in May 1885. A valuation was then made, and placed before their creditors, with a view of making a composition. That valuation was 74,000*l.* They paid a composition of 7*s.* 6*d.* in the pound. They spent on new machinery during the last seven years 13,000*l.* The entire plant, in complete working order, was sold in December last for 28,000*l.*

5919. (*The Chairman.*) But are you aware that in recent years there have been great changes in the character of the machinery used in the cotton trade which has been the cause of great economy in manufacture?—Perfectly.

5920. And are not the mills that were used for the former character of machinery unfit to be used for the new machinery without such alteration as would make it almost necessary to rebuild them?—That I am perfectly familiar with, because I am interested in two concerns myself, and we have laid out an immense deal of money in the last 10 years in rebuilding and changing the machinery; but we have suffered great depreciation of our property, notwithstanding this outlay.

5921. But that might account for a very great depreciation in such a case as you have called attention to?—It would not adequately account for it. I will give you two or three other instances of depreciation of various kinds of property in Manchester. I will repeat that the first one I quoted was a fall from 144,000*l.* to 28,000*l.*

5922. What was the valuation of 28,000*l.* made for?—It was actually sold at that a few months ago.

5923. Yes, but you could, perhaps, hardly compare the price at which it was sold with the valuation as resting upon the same basis?—I presume the valuation was considered a fair one at the time. Here are some actual sales of property in Manchester. Central Buildings, Manchester, cost 41,000*l.*, mortgaged for 27,000*l.* seven years ago, sold the other day at 25,000*l.* Here is another case, 27,500*l.* cost, sold 18,000*l.* Here is another case, a large dwelling-house cost 11,000*l.*, just sold for 2,050*l.*; another dwelling-house cost 9,000*l.*, offered for 1,900*l.*, and no buyer. These are a few samples of Manchester property.

5924. Were those dwelling-houses in Manchester?—In the neighbourhood; and my experience of Liverpool property is much to the same effect.

5925. (*Mr. Chaplin.*) And do you say that is to be taken as a fair specimen of the fall of Manchester property generally?—I should hardly think those dwelling-houses are, but the Central Buildings show the general fall.

5926. (*The Chairman.*) The fall in the price of dwelling houses might depend on change of fashion?—Only partly; that only partly explains it.

5927. I do not know if you are aware that there has been a change in the value of property in Manchester arising from a change in the habits of the industrial classes, in this, that they now live largely out of Manchester and come in by railway to their daily work?—No, I do not know that I could speak from experience there. If you will allow me I will give you one other instance. A large Lancashire cotton spinner

died some years ago, leaving property in mills in one of the best manufacturing districts in the county, going well, and valued at his death at 200,000*l.* The property was left to his two sons, who continued to manage it after, as they had before, his death. It was charged with 80,000*l.* at interest to a married daughter and 1,000*l.* per annum to the widow of the deceased. At the present time, so greatly has the value fallen and so onerous are these charges upon it, that the two brothers are now contemplating resigning the property to the daughter and widow altogether, as the charges represent more than its value to-day. I quote that as typical of a vast amount of Lancashire property. It is a very common thing to burden a property with annuities and jointures for the benefit of widows and daughters, and within my knowledge there are many cases where the sons who inherited the property subject to a certain amount of charges, have found at last that they were bankrupt, and they have had to give up the property altogether for the benefit of those who had received jointures upon it, the depreciation has been so great. During the last few years the number of concerns that have paid well are a mere bagatelle; the great bulk of the trade has been labouring under intense depression, and at the present moment there is hardly a single mill in Oldham that is paying. It is in Oldham that these mills are that you referred to; it is there that these improvements have been carried out to a large extent. I went over carefully a share list of the Oldham Joint Stock Mills about six months ago and analysed it, and I came to the conclusion that if the entire property were put up to sale by auction it would not have left, taken all round, a single sixpence to the shareholders. The whole of the capital was virtually lost, and the property would not have been sufficient to cover the charges upon it.

5928. (*Mr. Chaplin.*) What, all the manufacturing property in Oldham?—I went over a share list during the great depression last year, and that was the conclusion I came to, and I believe most competent valuers would have arrived at the same conclusion.

5929. And even in the case of the new mills there is this great loss too?—I am taking the property as a whole, "lock, stock, and barrel." The mills varied amongst themselves; some there were, very few, whose shares were still standing near par, but the bulk of them were standing at a heavy depreciation, and, what is still more important, the mills were all grossly over-valued. The capital had not been depreciated at the rate at which it was necessary to depreciate it, and if they had been sold off at the market value of the day they would not have paid off the mortgagees and the loan holders. There would not have been anything left to the shareholders, taking them all round as a body. That was the conclusion I came to in examining the list in August of last year.

5930. (*The Chairman.*) That was setting good ones against bad ones, and bad ones against good ones?—I am taking them as a whole, and they are the best mills in Lancashire, the bulk of them being new mills, or nearly new mills.

5931. (*Mr. Chaplin.*) Have you any other instances that you want to give to the Commission?—Well, these are sufficient, I think, for the manufacturing districts. With regard to the agricultural districts, I stated already that I have an admirable statement prepared by Mr. Squarey, one of the largest land agents, drawn from his experience over a great part of England.

5932. Do you consider that the great fall of prices which you speak of, and the distress that you believe it has led to, has had any tendency to increase socialistic feelings?—I think very decidedly. I think in England, as in all countries where you have had several years of falling prices and great depression, there has been a serious outgrowth of socialism and discontent in connexion with it, and I should like to put in evidence before this Commission a letter I have from a gentleman who has devoted

much attention to working class questions, namely, Professor Foxwell.

5933. Do you think that the present state of things is giving rise to any feeling or desire for a return to protection?—I think there is not the slightest doubt in the world that the heavy fall in prices in the last 10 years has given a great stimulus to protectionist policy all over Europe and America, and is producing a very strong current of opinion in England in the same direction.

5934. Among whom do you mean, among the working classes or the capitalists?—Amongst the industrial classes, I should say, generally. The agricultural classes in France and Italy and Germany have all demanded and got protection; and the duties have been largely increased this present year; and we find that our colonies are moving more and more in the same direction; and it is only to-day that I was applied to by a deputation about a rise of the Canadian duties in iron amounting to 150 per cent., which has just been decided upon in Canada, and which will destroy altogether our trade with Canada in iron unless it can be averted.

5935. That is an increase in the iron duties that you speak of, is it not?—150 per cent. in Canada on the duties already existing.

5936. When you speak of the industrial classes do you mean us to understand that from your own experience the desire for protection in consequence of the present state of things is spreading among the manufacturing artisans?—I think widely. I found it very strong in Liverpool the last few years. They cry out against cheap goods coming into this country and competing with our manufactures, when they are in such a very depressed state themselves.

5937. (*Sir T. Farrer.*) Does their desire go to the extent of protection to corn?—It applies more, I think, to protection against foreign manufactured goods; those countries are doing as much as they can to shut out our goods, and they think it is very unfair to take their goods in return free of duty; but I think it also applies in agricultural districts also, as we all know.

5938. (*Mr. Chaplin.*) But as far as you can gauge the feeling that you speak of among the working classes, is their desire for protection so great that they would assent to it even if it included a duty upon corn?—I could not answer that question. I do not think the movement has gained such strength yet as to carry the country; all I say is that the long continued depression has very powerfully shaken the confidence of many classes in this country in the efficacy of free trade.

5939. But I gather that what you mean is this, that though the artisans may to a great extent desire to have a duty imposed upon manufactures, that if it came to placing a duty on corn they would hold a somewhat opposite opinion?—I think that is very probable.

5940. I mean if the duty on corn were to be the price of obtaining a duty on manufactures, then they would object to it?—Probably.

5941. One question as to the future of silver. What do you apprehend is the future of silver likely to be, assuming that nothing is done to restore it to its former position?—Well, the view I take is that we cannot remain where we are; we are upon an inclined plane. Silver must either be a monetary metal, or else it will cease to be used altogether as money; and undoubtedly if this conference breaks up and pronounces an adverse judgment, I think that further demonetisation of silver will take place within a few years, which will push it to a still lower level. I can see no limit, in fact, to the depreciation of silver if it ceases to be used as a monetary metal by the principal nations of the world.

5942. And if that occurred it would aggravate to that extent all the evils which you attribute to the fall in silver up to the present time?—Certainly.

5943. As regards other countries have you any reason for believing that they would join with England in any project of the kind that you suggest for the adoption of a bimetallic system?—I think there is hardly a doubt that if England was to agree to adopt the bimetallic system in concert with France, Germany, and the United States, the United States and France would respond at once favourably, for they have offered to do so again and again at the conferences which have been held, and I was informed last week by the President of the Bank of the Netherlands, who is intimate with the German financial authorities, who said that there was no doubt in his opinion that Germany would join the league.

5944. Assuming your suggestions were adopted, you see no difficulty in maintaining the ratio between the two metals?—None whatever if that large union of countries were to adopt it. The ratio was virtually maintained by France alone, and latterly by a union of States called the Latin Union, without any great difficulty for 70 years, and I have no doubt whatever that if a large union such as that contemplated were effected, the ratio would be perfectly observed for any length of time that the union desired.

The witness withdrew.

Adjourned till Friday the 10th of June.

*Mr. S.
Smith, M.P.*
23 May 1887.

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APPENDIX I.

(Statement put in by Mr. Stewart

A TABLE showing the MONTHLY FLUCTUATIONS, in LONDON, in the PRICE

Years	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
1833	58½	58½	58½	58½	58½	58½	59½-59½	59½	59½	59½	59½	59½
1834	59½	59½	60	59½	59½	59½	60½-60½	60½	60½	59½	59½	59½-59½
1835	59½	60	60	59½	59½	59½-59½	59½	59½	59½	59½	59½	59½
1836	59½-59½	59½-60	59½-60½	59½-59½	60	60½	60-60½	60½-60½	60½-60½	60½-60½	60½	59½-60
1837	60½-60½	60	60	59½-59½	59½-59½	59½	59½-59½	59-59½	59½-59½	59-59½	59½-59½	59½
1838	59½	59½	59½	59½-59½	59½	59½	59½	59½	59½	59½	59½-59½	60-60½
1839	60½-60½	60½	60½-60½	60-60½	60½-60½	60½	60½-60½	60½	60½	60½	60½-60½	60½
1840	60½-60½	60½	60½-60½	60½-60½	60½-60½	60½	60½-60½	60½-60½	60½-60½	60½-60½	60½	60½-60½
1841	60½	60½	60	60	60½	60½-60½	59½-60	60½	60½	59½-59½	59½	59½
1842	59½	59½-59½	59½	59½-59½	59½-59½	59½-60	59½	59½-59½	59½-59½	59½-59½	59½-59½	59½-59½
1843	59½-59½	59-59½	59-59½	59½	59½	59½-59½	59½	59½	59½	59½	59½	59½
1844	59½-59½	59½	59½	59½	59½	59½	59½-59½	59½	59½	59½	59½	59½
1845	59½	59½-59½	58½-59½	58½	58½-59½	59-59½	59½-59½	59½-59½	59½	59½-59½	59½-59½	59½-59½
1846	59½	59½	59½	59	59	59	59½	59½	59½	59½-59½	60½	60½
1847	60½-60½	60½	60½	58½-60½	58½-59½	59-59½	59½-60	59½-60	59½-59½	59½-59½	59½	59½
1848	59½-59½	59½-59½	59½-59½	58½-59½	59½-60	59½-59½	59½-59½	59½-59½	59½	59½-59½	59½-59½	59½
1849	59½-59½	59½	60-60½	59½-60	59½	59½-59½	59½-59½	59½-59½	59½-59½	59½-59½	59½	59½-59½
1850	59½-59½	59½-59½	59½-59½	59½	59½	59½	59½-59½	59½	60-60½	60½-60½	60½-61½	61½
1851	61½	61½-61½	61½	61½	61½-61½	60½-61½	60½-61	60½-61	60½-60½	60-60½	60½	60½
1852	60½-60½	60½	60½	59½-60	59½	59½-60½	60½	60½	60½	60½-61½	61½-61½	61½-61½
1853	61½	61½	61½	61½	60½-61½	60½-61½	61½-61½	61½-61½	61½-62½	61½-62½	61½-62½	61½-61½
1854	61½-61½	61½	61½	61½-61½	60½-61½	61½-61½	61½	61½	61-61½	61½-61½	61½-61½	61½
1855	61½-61½	61½-61½	60½	60½	61½-61½	61½	61½-61½	61½	61½	61½	60-61½	61½
1856	60½-61½	61½-61½	60½-61	60½-61	61-61½	60½-61½	60½	61½-61½	61½-62½	62½	62½	61½-61½
1857	62½	61½-61½	61½-61½	61½-61½	61-61½	61½	61½-61½	61½-62	61½	61½	61½-61½	62-62½
1858	61½	61½-61½	61½	61½-61½	61½-61½	61½-61½	61½-61½	60½-61	60½	61½-61½	61½-61½	61½-61½
1859	61½-62	61½	61½-62½	61½-62½	62½-62½	62-62½	62-62½	61½-62	61½-62	61½-62	62	62
1860	62-62½	62-62½	61½-62½	61½	61½	61½-61½	61½	61½-61½	61½	61½-61½	61½-61½	61½-61½
1861	61½-61½	61½-61½	60½-61	60½-61½	60½-60½	60½-60½	60½-60½	60½-60½	60½-60½	60½-60½	60½-61½	61-61½
1862	61-61½	61½-61½	61½-61½	61½-61½	61½-61½	61-61½	61-61½	61½-61½	61½-61½	61½-61½	61½-62½	61½-61½
1863	61½-61½	61½-61½	61½-61½	61-61½	61½-61½	61-61½	61-61½	61-61½	61½-61½	61½-61½	61½-61½	61½-61½
1864	61½-62½	61½-61½	61½-61½	61½-61½	60½-61½	61½-61½	61½-61½	61-61½	61½-61½	60½-61½	60½-61½	61½
1865	61½-61½	61½-61½	61-61½	60½	60½-60½	60½-60½	60½-60½	60½-60½	60½-61	61½-61½	61½-61½	61½-61½
1866	61½-61½	60½-61½	60½-61	61-61½	61-62	61½-62½	60½-61½	60½-60½	60½-61	60½-61	60½-61	60½-60½
1867	60½	60½	60½-60½	60½-61½	60½-60½	60½-60½	60½	60½-60½	60½-60½	60½-60½	60½-60½	60½-60½
1868	60½-60½	60½-60½	60½-61½	60½-60½	60½-60½	60½	60½-60½	60½-60½	60½-60½	60½-60½	60½-60½	60½-60½
1869	60½-60½	60½-61	60½-60½	60½-60½	60-60½	60-60½	60½-60½	60½-60½	60½-60½	60½-60½	60½-60½	60½-60½
1870	60½-60½	60½-60½	60½-60½	60½-60½	60½-60½	60½-60½	60½-62	60½-60½	60½-60½	60½-60½	60½-60½	60½-60½
1871	60½-60½	60½-60½	60½-60½	60½-60½	60½-60½	60½-60½	60½-60½	60½-60½	60½-60½	60½-60½	60½-61	60½-60½
1872	60½-61½	60½-61½	60½-60½	60½-60½	60½-60½	60-60½	60½-60½	60-60½	60½-60½	60½-60½	60-60½	59½-59½
1873	59½-59½	59½-59½	59½-59½	59½	59½-59½	59½-59½	59½-59½	58½-59½	58½-59½	58½-59	57½-58½	58-58½
1874	58-59½	58½-59	58½-59½	58½-59½	58½-58½	58½-59	58½-58½	57½-58½	57½-58	57½-57½	57½-58½	57½-57½
1875	57½-57½	57½-57½	57-57½	57½-57½	56½-57	55½-55½	55½-55½	56-56½	56½-56½	56½-57½	56½-56½	56½-56½
1876	54½-56½	53-54½	52½-54½	53½-54	52-54	50-52	46½-51½	50½-53½	51½-52½	52-53½	53½-55	55½-58½
1877	56½-58½	56-57½	53½-56½	53½-55	53½-54½	53½-54	53½-54½	54-54½	54½-55½	54½-55½	54-55	53½-54½
1878	53½-54	53½-55½	54½-55	53½-54½	53½-53½	52½-53½	52½-52½	52½-52½	51½-52½	49½-51½	50½-50½	49½-50½
1879	49½-51	49½-50½	48½-50½	49½-50½	50-51½	51½-53	51-52½	51½-51½	51½-51½	51½-53½	53-53½	52½-53
1880	52½-52½	52-52½	51½-52½	51½-52½	52½-52½	52½-52½	52½-52½	52½-52½	52½-52½	51½-52½	51½-51½	51½-52
1881	51-51½	51½-52½	52-52½	52-52½	51½-52	51-51½	50½-52½	51½-51½	51½-51½	51½-52½	51½-52	51½-52
1882	51½-52½	52-52½	51½-52½	52½-52½	52½-52½	51½-52½	51½-52	51½-52½	51½-52½	51½-51½	50½-51½	50-50½
1883	50-50½	50½-51	50½-51½	50½-50½	50½-50½	50½-50½	50½-50½	50½-50½	50½-50½	50½-51	50½-50½	50½-51
1884	50½-51	51-51½	50½-51½	50½-51	50½-50½	50½-50½	50½-50½	50½-50½	50½-50½	50½-50½	49½-50½	49½-49½
1885	49½-50	48½-49½	49-49½	48½-49½	48½-50	49-49½	49½-49½	48½-49½	47½-48½	47½-47½	47½-47½	46½-47½
1886	46½-47	46½-46½	46½-46½	46-46½	44½-46	44½-45½	42-44½	42-42½	42½-45	44½-45½	45½-47	45-46½

* Including bills on China for this year only. (The East India Company had the monopoly of the trade with China up to 1833.)

APPENDIX I.

Pisley. See Question 139.)

of BAR SILVER per Oz. Std. from January 1833 to December 1886.

Yearly Average.	Silver coined in England.	Amount of Bills and Telegraphic Transfers drawn in England on Indian Governments.	Export of Silver to the East.	Imports of Silver in Bars and Coin.	Average Bank Rate of Discount.	REMARKS.
59 $\frac{3}{8}$	£ 145	£ 55,510*	£ 1,895,023†			Continuance of East India Company. Slavery abolished; compensation to owners, 20,000,000 <i>l.</i> Renewal of bank charter; bank notes a legal tender. Great importation of gold into New York. Substitution of metallic currency for paper in the United States. Extinction of United States national debt. Bank of United States wound up, owing to refusal of congress to re-charter it. Banking and commercial embarrassments in United States. Spanish Civil War.
59 $\frac{1}{2}$	432,775	398,253	2,146,465			Commencement of panic in London. Discounts refused. Many houses trading with the United States stop payment. Accession of Queen Victoria. Rebellion in Canada. Resumption of specie payments in United States. Famine in various parts of British India. Afghan War.
59 $\frac{1}{4}$	146,665	732,803	2,086,167			Banks in United States suspend payments in specie. War with China.
60	497,719	2,045,254	2,610,101			Misunderstanding with France. Treaty of London for settlement of Eastern question.
59 $\frac{9}{16}$	75,385	2,042,232	3,010,190			Great depression in every branch of manufacturing industry.
59 $\frac{1}{2}$	174,042	1,706,184	1,945,264			Peace with China. Income Tax Act passed.
60 $\frac{1}{4}$	390,654	2,346,592	1,786,253			Treaty of commerce opens China to all nations.
60 $\frac{1}{2}$	207,900	1,439,525	1,841,335			Bank Charter Act passed. Consols 101 $\frac{1}{2}$. Prior to September this year the bank never reduced the rate below 4 per cent. Railway mania. Sikh War.
60 $\frac{3}{4}$	89,641	1,174,450	3,143,292			Commercial and railway panic. Repeal of corn laws.
59 $\frac{7}{8}$	192,852	2,589,288	4,794,678			Year of panic. 10,000,000 <i>l.</i> granted for relief of famine in Ireland. Gold discovered in California.
59 $\frac{5}{8}$	239,580	1,197,438	3,752,472			Sikh War.
59 $\frac{1}{2}$	610,632	2,801,731	2,495,959			First importation of Californian gold into England. Annexation of the Punjab.
59 $\frac{1}{4}$	647,658	2,516,951	2,939,922			Average of Consols 96 $\frac{1}{2}$.
59 $\frac{1}{8}$	559,548	3,065,709	1,973,391			Discovery of gold in Australia.
59 $\frac{1}{16}$	125,730	3,097,042	4,204,503			Consols touched 102, and averaged 99 $\frac{1}{2}$.
59 $\frac{1}{32}$	35,442	1,541,304	3,396,807			Australian Mint established.
59 $\frac{1}{64}$	119,592	1,889,195	3,811,809			Russian War began.
60 $\frac{1}{16}$	129,096	2,935,118	5,052,059			Loan of 16,000,000 <i>l.</i> Fall of Sebastopol.
61	87,868	3,236,458	1,715,100			Russian War ends.
60 $\frac{1}{2}$	189,596	2,777,523	2,447,450			Panic. Suspension of Bank Act. Indian Mutiny. Loan of 1,000,000 <i>l.</i> to East India Company.
61 $\frac{1}{4}$	701,544	3,317,122	3,117,980			End of Indian Mutiny.
61 $\frac{1}{2}$	140,580	3,850,565	3,095,490			Loan of 5,216,528 <i>l.</i> to East India Company.
61 $\frac{3}{8}$	195,510	3,669,678	6,431,733			Commercial treaty with France.
61 $\frac{1}{4}$	462,528	1,484,040	12,113,991			Financial depression in India. American Civil War begins.
61 $\frac{1}{8}$	373,230	2,819,711	16,731,915			Great distress in cotton manufacturing districts. Panic.
61 $\frac{1}{16}$	445,896	628,499	4,753,933	£ 6,700,000		Large exports of gold to the continent to pay for silver.
62 $\frac{1}{16}$	647,064	25,901	14,828,521	14,772,460		13,000,000 <i>l.</i> silver exported from France.
61 $\frac{1}{8}$	218,408	4,694	8,478,739	10,394,000		Close of American War.
60 $\frac{1}{2}$	209,484	797	6,824,807	6,590,000		Commercial and Joint Stock Companies panic. Bank declined to sell bar gold.
61 $\frac{1}{16}$	148,518	1,193,729	10,091,460	11,753,000		Great decline in export of silver; only 2,500,000 <i>l.</i> sent from France.
61 $\frac{1}{32}$	161,172	6,641,576	8,263,011	10,888,130		Abyssinian Expedition.
61 $\frac{1}{64}$	535,194	8,979,521	6,254,004	10,827,300		Distress in Lancashire.
61 $\frac{1}{128}$	501,732	6,789,473	3,598,058	6,980,000		Franco-Prussian War. Panics.
61 $\frac{1}{256}$	493,416	6,998,899	2,365,626	10,778,000		8,500,000 <i>l.</i> gold exported to Hanse towns. Peace between France and Germany
60 $\frac{1}{16}$	193,842	5,613,746	642,912	8,020,000		8,050,000 <i>l.</i> gold exported to Hanse towns. Commencement of decline in price of silver.
60 $\frac{1}{32}$	301,366	4,137,285	1,635,642	7,716,420		10,000,000 <i>l.</i> gold exported to Hanse towns. German Government announces the demonetization of silver.
60 $\frac{1}{64}$	76,428	3,705,741	2,362,943	6,730,000		Enormous increase of bullion in Bank of France, 22,000,000 <i>l.</i> , mostly gold.
60 $\frac{1}{128}$	336,798	6,980,122	1,579,473	10,649,000		Heavy commercial failures. Large export of gold to Germany. Continued decline in price of silver.
60 $\frac{1}{256}$	701,514	8,443,509	3,712,473	16,520,000		Remarkable fluctuations in rates of Indian exchanges and bar silver, the latter having touched the lowest price on record.
59 $\frac{1}{2}$	1,243,836	10,310,339	5,654,451	11,140,500		Great famine in India. Russo-Turkish War.
59 $\frac{1}{4}$	1,081,674	13,939,095	2,497,576	12,302,220		General depression in trade. Large bank failures. Russo-Turkish War ended.
58 $\frac{1}{2}$	890,604	13,285,678	7,092,726	11,797,990		Suspension of sales by German Government. Marked diminution in production of Californian mines.
56 $\frac{1}{2}$	594,001	10,841,615	3,714,404	9,506,767		Consols touched 100 $\frac{1}{2}$. Reported existence of large quantities of gold in South India.
52 $\frac{1}{2}$	222,354	11,513,233	10,914,407	13,585,608		Meeting of conference in Paris respecting bi-metallism, which adjourned without coming to any practical conclusion.
54 $\frac{1}{2}$	420,948	8,637,530	17,007,458	21,625,632		War with Egypt.
52 $\frac{1}{4}$	613,998	13,978,584	5,842,577	11,453,105		Completion of Italian order for gold.
51 $\frac{1}{2}$	549,054	14,705,700	7,034,987	10,520,012		War in Egypt; income tax increased. Franco-Chinese complications.
52 $\frac{1}{4}$	761,508	15,482,092	6,135,520	6,827,471		Suspension of the coinage of the Bland dollar, recommended by the President of the United States.
51 $\frac{1}{8}$	997,128	16,273,677	4,288,009	6,902,210		Great depression in trade.
51 $\frac{1}{16}$	209,880	12,053,665 to 2nd Jan. 1883.	6,423,270	9,243,375		
50 $\frac{1}{2}$	1,274,328	18,909,000	7,125,454	9,468,002		
50 $\frac{1}{4}$	658,548	16,966,112	8,418,522	9,546,496		
48 $\frac{1}{2}$	720,918	11,018,000	8,010,925	9,377,601		
45 $\frac{1}{2}$	417,384	11,791,000	5,846,222	8,166,249		

† The above totals from 1833 to 1850 include exports from other countries as well as England, from 1851 to 1875 from Southampton only, from 1876 shipments *via* Southampton, Venice, and Marseilles.

APPENDIX II.

Tables put in by Sir Hector Hay. See Questions 290, 295.
(a) GOLD (IN £ MILLIONS).

ESTIMATED PRODUCTION OF THE WORLD.										ENGLAND.				INDIA.		COINAGE OF SOVEREIGNS.				COINAGE OF PRINCIPAL FOREIGN COUNTRIES.					
										Imports.	Exports.		Imports.	Exports.	Royal Mint.	Australia.	Total Sovereigns.	United States.	Germany.	Russia.	France.	Belgium.	Italy.	Austria.	Total Foreign.
1852	20.6	12.	36.5	9.	2.4	1.1	2.4	9.	4.8	1.3	2.	8.7	—	8.7	11.4	—	8.7	11.4	—	—	1.1	1.1	4.	2.	13.1
1853	14.1	13.	31.	5.	2.4	1.	2.4	5.	12.7	1.1	1.5	12.	—	12.	7.9	—	12.	7.9	—	—	13.4	21.1	1.1	4.	20.8
1854	9.5	12.	25.4	5.	2.4	1.	2.4	5.	16.5	.9	1.2	4.1	—	4.1	5.2	—	4.1	5.2	—	—	21.1	18.	1.1	3.	26.7
1855	13.1	11.	27.	5.	2.4	1.	2.7	5.	11.8	2.5	.8	9.	—	9.	7.3	—	9.5	7.3	—	—	20.3	24.3	1.2	4.	28.1
1856	14.3	11.	29.5	5.	2.7	1.	2.7	5.	12.	2.2	1.1	6.	—	6.	7.3	—	7.2	7.3	—	—	22.9	28.3	1.1	3.	33.4
1857	11.4	11.	26.6	5.	2.7	1.	2.7	5.	15.	2.8	.8	4.8	—	4.8	3.2	—	5.6	3.2	—	3.	15.5	22.9	1.1	2.	25.2
1858	10.7	10.	24.8	5.	2.7	.9	2.7	5.	12.6	4.4	.9	1.2	—	1.2	6.	—	2.5	6.	—	—	15.5	22.9	1.1	2.	26.8
1859	10.8	10.	24.9	5.	2.7	.9	2.7	5.	18.1	4.3	.8	2.6	—	2.6	3.5	—	3.8	3.5	—	1.1	28.1	22.9	1.1	2.	35.4
1860	10.5	9.2	23.8	5.	2.7	.9	2.7	5.	15.6	4.2	.8	3.1	—	3.1	3.3	—	4.7	3.3	—	1.1	17.1	22.9	1.1	2.	28.9
1861	9.8	8.6	23.8	5.	3.	.9	3.	5.	11.2	5.2	.7	8.2	—	8.2	10.1	—	9.9	10.1	—	—	8.9	22.9	1.6	2.	17.1
1862	9.3	7.8	21.4	5.	3.	.8	3.	5.	16.	6.0	1.0	7.8	—	7.8	9.1	—	10.3	9.1	—	—	8.6	22.2	1.6	2.	22.2
1863	8.9	8.	21.3	5.	3.1	.8	3.1	5.	15.3	9.	1.1	7.	—	7.	4.1	—	8.5	4.1	—	1.1	8.4	22.2	2.6	1.	19.8
1864	9.1	9.2	22.6	5.	3.	.8	3.	5.	13.3	9.8	1.9	9.5	—	9.5	4.3	—	12.2	4.3	—	1.1	10.9	21.2	.5	2.	21.2
1865	8.8	10.6	24.	5.	3.3	.8	3.3	5.	8.5	6.4	1.7	2.4	—	2.4	5.7	—	4.7	5.7	—	—	6.4	21.2	2.7	2.	18.1
1866	8.8	10.7	24.2	5.	3.4	.8	3.4	5.	12.7	4.9	.7	5.1	—	5.1	5.7	—	8.	5.7	—	3.	14.6	21.2	.2	3.	24.6
1867	8.3	10.3	23.2	5.	3.4	.7	3.4	5.	7.9	4.8	.2	.5	—	.5	5.6	—	2.9	5.6	—	1.1	7.9	21.2	.2	2.	18.1
1868	9.7	9.6	24.	5.	3.6	.6	3.6	5.	12.7	5.2	—	1.6	—	1.6	3.9	—	2.4	3.9	—	1.1	13.6	21.4	.3	2.	21.4
1869	9.3	9.9	24.2	5.	4.	.5	4.	5.	8.5	5.7	1.	7.4	—	7.4	4.4	—	1.3	4.4	—	—	9.3	21.4	.2	1.	18.
1870	7.7	10.6	23.8	5.	4.5	.5	4.5	5.	10.	2.8	.5	2.3	—	2.3	4.5	—	1.2	4.5	—	—	2.2	13.1	.2	5.	9.2
1871	9.6	7.4	23.3	5.	4.8	1.	4.8	5.	20.5	2.8	.5	9.9	—	9.9	4.2	—	2.8	4.2	—	7.	2.	13.1	.2	5.	9.2
1872	7.8	8.1	22.	5.	4.6	1.	4.6	5.	19.7	3.6	—	15.3	—	15.3	4.2	—	2.7	4.2	—	20.7	—	1.8	.6	27.1	
1873	8.	8.3	22.3	5.	4.5	1.	4.5	5.	19.	2.6	1.	8.4	—	8.4	7.	—	2.3	7.	—	28.7	—	2.3	.8	39.3	
1874	7.3	8.2	21.5	5.	4.5	1.	4.5	5.	10.6	1.6	.3	1.5	—	1.5	10.1	—	3.4	10.1	—	4.6	1.	2.4	.2	22.4	
1875	7.5	8.5	22.1	6.	4.5	1.	4.5	6.	18.6	2.1	.2	.2	—	.2	6.7	—	4.	6.7	—	8.1	9.4	3.3	1.1	31.	
1876	7.2	9.	22.3	6.	4.5	1.	4.5	6.	14.	1.8	.3	4.7	—	4.7	7.6	—	3.8	7.6	—	7.8	7.	1.6	.5	29.1	
1877	6.7	9.5	23.4	6.	5.4	1.2	5.4	6.	20.	1.4	1.2	1.	—	1.	8.7	—	3.1	8.7	—	5.5	10.2	4.7	.2	34.8	
1878	6.5	6.8	22.1	7.	5.4	1.5	5.4	7.	14.	1.6	1.1	2.3	—	2.3	10.5	—	3.5	10.5	—	6.1	7.4	2.	.3	32.	
1879	6.2	6.8	20.8	8.	5.5	1.5	5.5	8.	16.5	1.5	2.4	—	—	—	8.2	—	4.1	8.2	—	1.7	1.	—	1.1	16.9	
1880	6.5	7.	21.2	8.	5.4	1.5	5.4	8.	11.5	2.	.3	4.1	—	4.1	11.2	—	4.5	11.2	—	1.4	7.4	—	.7	17.9	
1881	6.7	6.6	20.6	9.	4.8	1.6	4.8	9.	15.5	3.7	—	—	—	—	15.7	—	3.7	15.7	—	.8	.9	—	.4	22.5	
1882	6.5	6.3	20.2	1.	4.7	1.7	4.7	1.	12.1	4.8	—	—	—	—	17.9	—	3.8	17.9	—	7.	1.5	4.	5.6	23.9	
1883	5.8	6.1	19.6	1.	.5	1.7	.5	1.	6.5	5.1	.2	1.4	—	1.4	7.2	—	3.3	7.2	—	4.	—	—	.2	.5	16.5
1884	5.9	5.5	19.1	1.	5.	1.7	5.	1.	11.7	5.5	—	2.3	—	2.3	5.6	—	4.5	5.6	—	2.8	—	—	.1	.4	12.4
1885	6.	5.8	19.5	1.	5.	1.7	5.	1.	11.5	4.8	1.	3.	—	3.	4.9	—	4.5	4.9	—	.4	—	—	.1	.5	9.9

(b) SILVER (IN £ MILLIONS).

ESTIMATED PRODUCTION OF THE WORLD.						ENGLAND.		INDIA.		COINAGE OF THE PRINCIPAL COUNTRIES.									
	United States.	Mexico and South America.	Germany.	Other Countries.	Total.	Imports.	Exports.	Imports.	Exports.	Royal Mint.	India.	United States.	Germany.	Russia.	France.	Belgium.	Italy.	Austria.	Total Coinage.
1852	—	6	4	1.7	8.1	3.7	8	5.2	2	5.2	2	2	—	—	2.5	6	—	1	9.1
1853	—	6	4	1.7	8.1	5.5	9	5.9	7	5.9	1.8	—	—	—	8	5	—	—	9.7
1854	—	6	4	1.7	8.1	6	15	5.9	1	5.9	1.7	—	—	—	1	—	1	—	7.9
1855	—	6	4	1.7	8.1	1.1	1.1	1.9	2	1.9	7	—	—	—	1	—	—	—	8.8
1856	—	6	5	1.7	8.2	8.8	6	7.8	5	7.8	1	—	—	—	2.2	—	—	—	11
1857	—	6	5	1.7	8.2	12.2	1.1	11.2	4	11.2	3	—	—	—	2	—	1	—	13.4
1858	—	6	5	1.7	8.2	13	8	12.7	4	12.7	1.6	—	—	—	3	—	4.4	—	21.1
1859	—	6	5	1.7	8.2	8.4	6	6.6	6	6.6	1.2	—	—	—	3	—	4.7	—	17.9
1860	—	6	6	1.7	8.3	12	6	10.7	3	10.7	5	—	—	—	8	—	3	1	19.7
1861	—	6	6	1.6	8.6	6.4	1.1	5.8	2	5.8	5	—	—	—	1	—	1.8	1	12.9
1862	—	6	6	1.6	9.1	9.8	7	7.5	1	7.5	5	—	—	—	1	—	1	—	12.2
1863	—	6	6	1.6	9.9	13.6	1.1	9.4	2	9.4	2	—	—	—	—	—	—	—	12.6
1864	—	6	6	1.6	10.4	14	1.2	11.6	5	11.6	1	—	—	—	3	—	1.2	—	15.6
1865	—	6	6	1.6	10.5	11.5	1.4	10.9	5	10.9	1	—	—	—	—	1	8	2	15.4
1866	—	6	8	1.6	10.4	20.2	1.5	14.6	5	14.6	1	—	—	—	—	4	6	1	21.2
1867	—	5.3	8	1.6	10.1	9.7	1.7	6.2	3	6.2	2	—	—	—	2.2	1.8	6	—	17.5
1868	—	5	8	1.6	9.8	7	8	4.3	3	4.3	2	—	—	—	3.7	2.2	8	—	13.5
1869	—	5	8	1.6	9.8	10	1.4	4.3	1	4.3	2	—	—	—	2.3	3.5	2	1	12.5
1870	—	5.5	8	1.6	11.1	8.3	6	7.5	3	7.5	3	—	—	—	2.2	4.6	4	1	17.1
1871	—	5.5	1.3	1.2	11.8	2.7	1.7	1.7	7	1.7	4	—	—	—	9	9	1.4	7	9
1872	—	5.2	1.3	1.2	11.7	8	1.5	1.7	1.2	1.7	6	—	—	—	1.1	4	1.4	7	7.9
1873	—	4.8	1.3	1.2	12.8	1.9	1.2	4	1.1	4	6	—	—	—	6.6	4.4	1.7	9	20.1
1874	—	5.2	1.3	1.2	13.6	4.1	1.6	2.4	9	2.4	1.2	—	—	—	2.4	5	2.4	8	13.4
1875	—	5	1.3	1.2	13.8	6	1.4	4.9	6	4.9	2	—	—	—	3	6	2	1.2	20.6
1876	—	5	1.1	1.5	15.4	3.5	1.9	2.6	6	2.6	3.8	—	—	—	2.1	4	1.5	1.6	23.3
1877	—	5.5	1.2	1.5	17.4	10	2.8	6.3	4	6.3	5.7	—	—	—	7	—	7	1.4	18.9
1878	—	5.9	1.2	1.5	16.1	15.8	1.1	16.3	6	16.3	5.6	—	—	—	1	—	4	2.4	28.1
1879	—	5.5	1.3	1.5	15.8	5.6	1.6	7.3	5	7.3	5.5	—	—	—	—	—	8	5.5	20.8
1880	—	6.9	1.4	1.6	17.5	9.6	1.6	10.3	8	10.3	5.6	—	—	—	—	—	—	1.4	19.5
1881	—	7.2	1.4	1.6	18.8	5.3	1.4	4.4	1	4.4	5.5	—	—	—	—	—	3	1.8	14.1
1882	—	7.5	1.6	1.8	20.5	6.5	1.1	2.9	2	2.9	5.5	—	—	—	—	—	2	7	10
1883	—	8.5	1.7	1.8	20.6	8.3	8	7.3	1.3	7.3	5.7	—	—	—	—	—	3	1.1	16.3
1884	—	8.7	1.8	1.8	20.8	7.4	1	4.1	7	4.1	5.7	—	—	—	—	—	4	1	12.2
1885	—	8.5	1.9	2	21.3	9.1	1.8	6	7	6	5.8	—	—	—	—	—	—	7	14.3

APPENDIX III.

Papers put in by Mr. Giffen.

See QUESTION 472.

(A.)—ESTIMATED AMOUNT of the production of GOLD and SILVER in each of the under-mentioned periods and years.

[From Soetbeer's "Materialien," &c., p. 1.]

PERIODS.	WEIGHT.				VALUE.					
	Gold. Kilo-grammes.	Silver. Kilo-grammes.	Proportion.		Gold. (Thousands of Marks.)	Silver. (Thousands of Marks.)	Proportion.		Gold and Silver. Thousands of Marks.	Value in Gold of one Kilo-gramme of Silver. Marks.
			Gold. %	Silver. %			Gold. %	Silver. %		
(Annual Average.)										
1493-1520	5,800	47,000	11·0	89·0	16,182	12,220	57·0	43·0	28,402	260
1521-1544	7,160	90,200	7·4	92·6	19,976	22,370	47·2	52·8	42,346	248
1545-1560	8,510	311,600	2·7	97·3	23,742	76,965	23·6	76·4	100,707	247
1561-1580	6,840	299,500	2·2	97·8	19,083	72,779	20·8	79·2	91,862	243
1581-1600	7,380	418,900	1·7	98·3	20,590	98,860	17·2	82·8	119,450	236
1601-1620	8,520	422,900	2·0	98·0	23,771	96,421	19·8	80·2	120,192	228
1621-1640	8,300	393,600	2·1	97·9	23,157	78,326	22·8	77·2	101,483	199
1641-1660	8,770	366,300	2·3	97·7	24,468	70,330	25·8	74·2	94,798	192
1661-1680	9,260	337,000	2·7	97·3	25,835	62,682	29·2	70·8	88,517	186
1681-1700	10,765	341,900	3·1	96·9	30,034	63,593	32·1	67·9	93,627	186
1701-1720	12,820	355,600	3·5	96·5	35,768	65,075	35·5	64·5	100,843	183
1721-1740	19,080	431,200	4·2	95·8	53,233	79,772	40·0	60·0	133,005	185
1741-1760	24,610	533,145	4·4	95·6	68,662	100,764	40·5	59·5	169,426	189
1761-1780	20,705	652,740	3·1	96·9	57,767	124,021	31·8	68·2	181,788	190
1781-1800	17,790	879,060	2·0	98·0	49,634	162,626	23·4	76·6	212,260	185
1801-1810	17,778	894,150	1·9	98·1	49,600	160,053	23·7	76·3	209,653	179
1811-1820	11,445	540,770	2·1	97·9	31,932	97,339	24·7	75·3	129,271	180
1821-1830	14,216	460,560	3·0	97·0	39,663	81,519	32·7	67·3	121,182	177
1831-1840	20,289	596,450	3·3	96·7	56,606	105,572	34·9	65·1	162,178	177
1841-1850	54,759	780,415	6·6	93·4	152,777	137,353	52·7	47·3	290,130	176
1851-1855	199,388	886,115	18·4	81·6	556,308	160,387	77·6	22·4	716,695	181
1856-1860	201,750	904,990	18·2	81·8	562,899	164,709	77·4	22·6	727,608	182
1861-1865	185,057	1,101,150	14·4	85·6	516,326	199,308	72·1	27·9	715,634	181
1866-1870	195,026	1,339,085	12·7	87·3	544,139	239,696	69·4	30·6	783,835	179
1871-1875	173,904	1,969,425	8·1	91·9	485,207	344,649	58·5	41·5	829,856	175
1876-1880	172,414	2,450,252	6·6	93·4	481,045	382,062	55·7	44·3	863,107	156
1881-1885	149,137	2,861,709	5·0	95·0	416,098	428,760	49·3	50·7	844,858	150

(B.)—DETAILED ESTIMATE of the PRODUCTION of GOLD and SILVER in the under-mentioned PERIODS and YEARS.

[From Soetbeer's Materialien, &c., p. 2.]

GOLD (in kilogrammes).

Periods.	United States.	Australia.	Russia.	Mexico, Colombia, Brazil.	Other Countries.	Total.	Estimate of the Director of the U.S. Mint.	
Annual Average.	1851-1855	88,800	69,573	24,730	7,710	8,575	199,388	--
	1856-1860	77,100	82,392	26,570	7,000	8,688	201,750	--
	1861-1865	66,700	77,634	24,084	7,650	8,989	185,057	—
	1866-1870	76,000	73,526	30,050	6,940	8,510	195,026	—
	1871-1875	59,500	63,129	33,380	7,240	10,655	173,904	—
Years.	1876	60,000	49,156	33,600	7,200	16,000	165,956	—
	1877	70,300	45,045	41,000	7,100	16,000	179,445	171,453
	1878	76,800	43,747	42,100	7,200	16,000	185,847	179,175
	1879	58,300	43,307	42,600	7,100	16,000	167,307	163,675
	1880	54,200	45,215	41,400	6,700	16,000	163,515	160,152
	1881	52,200	45,564	38,500	6,600	16,000	158,864	155,016
	1882	48,900	44,075	32,700	6,300	16,500	148,475	148,939
	1883	45,140	40,705	35,800	6,400	16,500	144,545	141,733
	1884	46,343	42,400	32,908	8,000	16,500	146,151	143,381
	1885	47,850	—	—	—	—	—	—

SILVER (in kilogrammes).

Periods.	Mexico.	Peru, Bolivia, Chile.	United States.	Germany.	Other Countries.	Total.	Estimate of the Director of the U.S. Mint.	
Annual Average.	1851-1855	466,100	218,600	8,300	48,960	144,155	886,115	—
	1856-1860	447,800	190,400	6,200	61,510	199,080	904,990	—
	1861-1865	473,000	191,100	174,000	68,320	194,730	1,101,150	—
	1866-1870	520,900	229,800	301,000	89,125	198,260	1,339,085	—
	1871-1875	601,800	374,700	564,800	143,080	285,045	1,969,425	—
Years.	1876	601,000	350,000	933,000	139,779	300,000	2,323,779	—
	1877	634,000	350,000	957,000	147,612	300,000	2,388,612	2,174,610
	1878	644,000	350,000	1,089,376	167,988	300,000	2,551,364	2,282,573
	1879	699,000	350,000	981,000	177,507	300,000	2,507,507	2,313,731
	1880	701,000	350,000	942,987	186,011	300,000	2,479,998	2,326,941
	1881	721,000	350,000	1,034,649	186,990	300,000	2,592,639	2,458,322
	1882	738,000	390,000	1,126,083	214,982	300,000	2,769,065	2,690,573
	1883	739,000	510,000	1,111,457	235,063	300,000	2,895,520	2,812,972
	1884	785,000	450,000	1,174,205	248,117	300,000	2,957,322	2,770,610
	1885	—	—	1,241,000	278,000	(340,000)	—	—

(C.)—DETAILED ESTIMATE of the PRODUCTION of GOLD and SILVER in the under-mentioned PERIODS and YEARS.

[From Soetbeer's Materialien, &c., p. 3.]

GOLD (in Thousands of Marks).

Periods.	United States.	Australasia.	Russia.	Mexico, Colombia, Brazil.	Other Countries.	Total.	Estimate of the Director of the U.S. Mint.	
Annual Average.	1851-1855	247,752	194,124	68,997	21,511	23,924	556,308	—
	1856-1860	215,109	229,891	74,130	19,530	24,240	562,899	—
	1861-1865	186,093	216,617	67,194	21,343	25,079	516,326	—
	1866-1870	212,040	205,153	83,840	19,363	23,943	544,139	—
	1871-1875	166,005	176,145	93,130	20,200	29,727	485,207	—
Years.	1876	167,400	137,155	93,744	20,088	44,640	463,027	—
	1877	196,137	125,684	114,390	19,809	44,640	500,660	113,947
	1878	214,272	122,063	117,459	20,088	44,640	518,522	119,023
	1879	162,657	120,837	118,854	19,809	44,640	466,797	108,736
	1880	151,218	126,161	115,506	18,693	44,640	456,218	106,387
	1881	145,638	127,134	107,415	18,414	44,640	443,241	103,023
	1882	136,431	122,981	91,233	17,577	46,035	414,257	98,985
	1883	125,941	113,575	99,882	17,856	46,035	403,289	94,197
	1884	129,297	118,296	91,813	22,320	46,035	407,761	95,293
	1885	133,501	—	—	—	—	—	—

SILVER (in Thousands of Marks).

Periods.	Mexico.	Peru, Bolivia, Chile.	United States.	Germany.	Other Countries.	Total.	Estimate of the Director of the U.S. Mint.	
Annual Average.	1851-1855	84,364	39,567	1,502	8,862	26,092	160,387	—
	1856-1860	81,500	34,653	1,128	11,195	36,233	164,709	—
	1861-1865	85,613	34,589	31,494	12,366	35,246	199,308	—
	1866-1870	93,241	41,134	53,879	15,953	35,489	239,696	—
	1871-1875	105,315	65,572	98,840	25,039	49,883	344,649	—
Years.	1876	94,357	54,950	146,481	21,945	47,100	364,833	—
	1877	102,708	56,700	155,034	23,913	48,600	386,955	31,041
	1878	99,820	54,250	168,853	26,038	46,500	395,461	84,238
	1879	106,248	53,200	149,112	26,981	45,600	381,141	83,735
	1880	107,954	53,900	145,220	28,646	46,200	381,920	85,321
	1881	110,313	53,550	158,301	28,609	45,900	396,673	102,168
	1882	112,914	59,670	172,291	32,892	45,900	423,667	111,822
	1883	110,850	76,500	166,719	35,259	45,000	434,328	116,923
	1884	117,750	67,500	176,130	37,218	45,000	443,598	115,148
	1885	—	—	178,704	40,032	(48,960)	—	—

(D.)—STATEMENT of the AMOUNT of GOLD in the under-mentioned BANKS and STATE TREASURES on the 31st December in each Year named.
 [From Soetbeer's "Materialien," &c., p. 70; with the exception of the general total which is here inserted, subject to the observation that prior to 1879, there was a certain amount of gold in reserve in the United States not here accounted for, so that the total is not quite on a uniform basis throughout.]

YEARS.	Bank of England and Scotch and Irish Banks of Issue.	Australian Banks.	Bank of the Netherlands.	Belgian National Bank.	Bank of France.	Swiss Banks of Issue.	Italian Banks of Issue and Italian Treasury.	Austro-Hungarian Bank.	National and other Banks of Issue in Sweden.	Norwegian Bank.	Danish National Bank.	Russian National Bank.	United States Treasury, and Banks of Issue in that Country.	TOTAL.
	Thousands of Marks.	Thousands of Marks.	Thousands of Marks.	Thousands of Marks.	Thousands of Marks.	Thousands of Marks.	Thousands of Marks.	Thousands of Marks.	Thousands of Marks.	Thousands of Marks.	Thousands of Marks.	Thousands of Marks.	Thousands of Marks.	Thousands of Marks.
1872	622,012	—	47,548	30,303	526,960	—	73,503	138,808	7,490	—	17,105	597,182	—	2,060,911
1873	595,442	153,098	67,953	30,245	489,040	—	73,173	141,055	16,780	23,881	32,122	618,207	—	2,245,946
1874	581,932	165,514	94,006	46,755	809,680	—	72,777	145,483	17,873	21,894	37,530	639,172	—	2,632,616
1875	596,241	172,594	117,726	62,324	939,440	—	53,805	135,708	22,015	16,024	43,183	643,459	—	2,802,519
1876	731,093	192,107	109,239	63,232	1,224,320	—	60,396	140,444	21,462	24,772	50,591	391,183	—	3,008,889
1877	646,861	174,773	85,866	48,960	941,680	—	61,444	134,752	19,710	16,351	37,979	399,436	—	2,567,812
1878	719,123	167,305	75,878	49,064	786,880	—	63,492	134,749	16,500	14,572	42,375	443,239	—	2,513,177
1879	698,410	206,135	124,323	57,308	593,280	—	64,342	117,264	22,566	19,339	47,237	483,316	666,457	3,096,077
1880	632,672	243,673	96,665	58,450	451,415	—	62,093	130,021	23,280	26,046	59,048	545,077	1,065,257	3,393,697
1881	554,710	224,950	30,869	61,872	524,557	—	57,044	137,451	22,109	23,784	54,902	545,093	1,238,603	3,475,944
1882	575,593	215,761	8,964	57,568	771,585	26,558	61,759	158,345	23,370	25,200	54,241	545,102	1,093,912	3,617,898
1883	593,017	210,712	39,962	57,508	760,443	31,521	488,844	155,364	23,291	25,985	54,829	545,102	1,147,352	4,133,930
1884	567,579	283,668	46,150	52,740	801,185	37,506	493,026	157,644	24,091	26,136	52,323	545,103	1,166,697	4,253,788
1885	564,824	263,560	81,437	55,600	925,932	39,330	396,800	138,145	24,592	21,834	52,047	545,107	1,408,056	4,517,264

(E).—ESTIMATED AMOUNT of the GOLD and SILVER coined in each of the under-mentioned COUNTRIES down to 1885.

[From Soetbeer's "Materialien," &c., p. 77.]

Countries.	Coinage of the Precious Metals down to the End of 1885.					
	Gold.		Silver.		Gold and Silver.	
	Millions of Marks.	Per-centage Proportion.	Millions of Marks.	Per-centage Proportion.	Millions of Marks.	Per-centage Proportion.
Great Britain - - -	2,220	16·61	432	5·51	2,652	12·50
British Colonies, excluding India -	680	5·09	66	0·84	746	3·52
Netherlands - - -	80	0·60	269	3·43	349	1·65
France, Italy, Belgium, Switzerland	4,195	31·39	3,200	40·80	7,395	34·87
Austria-Hungary -	160	1·20	370	4·72	530	2·50
Germany - - - -	1,744	13·05	892	11·37	2,636	12·43
Scandinavia - - -	115	0·86	42	0·54	157	0·74
Russia - - - -	770	5·76	280	3·57	1,050	4·95
United States -	2,464	18·44	1,292	16·47	3,756	17·71
Other Countries in Europe and America -	936	7·00	1,000	12·75	1,936	9·13
Total - - -	13,364	100·00	7,843	100·00	21,207	100·00

(F).—CHINA (see Questions 499 and 597).

(i).—STATEMENT showing the EXCESS of IMPORTS over EXPORTS (+) or EXPORTS over IMPORTS (—) of GOLD into or from CHINA in TRADE with UNITED KINGDOM, FRANCE, BRITISH INDIA, and the UNITED STATES, in the under-mentioned Years.

Year.	United Kingdom.	France.	British India.*	United States.†	Total Excess Imports (+), Exports (—).
	Thousand £.	Thousand £.	Thousand £.	Thousand £.	Thousand £.
1858 - -	— 35	—	— 1,559	} No returns.	—
1859 - -	—	—	— 2,768		
1860 - -	—	—	— 1,770		
1861 - -	— 5	—	— 1,124		
1862 - -	—	—	— 1,788	+ 442\$	— 1,346
1863 - -	—	—	— 2,256	Not distinguished.	—
1864 - -	—	Not distinguished‡	— 1,954	+ 767\$	— 1,187
1865 - -	— 1	" ‡	— 2,945	+ 696	— 2,250
1866 - -	— 2	" ‡	— 2,818	+ 416	— 2,404
1867 - -	— 4	—	— 2,343	+ 257	— 2,090
1868 - -	— 1	—	— 2,479	+ 514	— 1,966
1869 - -	— 1	Not distinguished‡	— 1,501	+ 428\$	— 1,074
1870 - -	— 62	+ 251‡	— 1,477	+ 403\$	— 885
1871 - -	— 1	Not distinguished‡	— 1,505	+ 326	— 1,180
1872 - -	—	+ 9‡	— 1,332	+ 730	— 593
1873 - -	— 129	Not distinguished‡	— 859	+ 665	— 323
1874 - -	— 283	" ‡	— 813	+ 556	— 540
1875 - -	— 342	+ 42‡	— 1,084	+ 151	— 1,233
1876 - -	— 808	Not distinguished‡	— 1,033	+ 80	— 1,761
1877 - -	— 187	— 84	— 406	+ 234	— 443
1878 - -	— 430	— 36	— 845	+ 134	— 1,177
1879 - -	— 809	— 1,069	— 833	+ 60	— 2,651
1880 - -	— 14	+ 439	— 1,184	+ 79	— 680
1881 - -	— 20	Not distinguished‡	— 1,549	+ 69	— 1,500
1882 - -	+ 4	" ‡	— 1,377	+ 99	— 1,274
1883 - -	— 194	" ‡	— 1,168	+ 72	— 1,290
1884 - -	— 69	— 186	— 1,361	+ 124	— 1,492
1885 - -	— 1,191	—	— 926	+ 92	—

* From 1858 to 1866 years ended 30th April. From 1867 years ended 31st March.

† Years ended 30th June.

‡ For these years the imports of gold from China into France are not separately stated, but they are believed to have been small. The excess given in the table may, therefore, require a slight correction.

§ The excess of imports from the United States in 1862 and 1864, includes the excess of imports from the United States into Japan, and in 1869 and 1870 the excess of imports into Singapore.

Note.—Foreign moneys have been converted at the following rates :—Francs at the rate of 25, Rupees at the rate of 10, and Dollars at the rate of 4½ to the £ sterling.

(ii.)—STATEMENT showing the EXCESS of IMPORTS over EXPORTS (+) or EXPORTS over IMPORTS (—) of SILVER into or from CHINA in TRADE with UNITED KINGDOM, FRANCE, BRITISH INDIA, and the UNITED STATES in the under-mentioned Years.

Year.	United Kingdom.	France.	— British India.*	United States.†	Total Excess, Imports (+) Exports (—).
	Thousand £.	Thousand £.	Thousand £.	Thousand £.	Thousand £.
1858	+1,565	+77	—809	} No returns.	
1859	+4,043	+151	—2,199		
1860	+1,937	+492	—244		
1861	+1,022	+218	—215		
1862	+3,806	+155	—1,597	+234§	+2,598
1863	+2,588	+827	—899	Not distinguished.	
1864	+1,698	+527‡	—513	+368§	+2,080
1865	+863	+234‡	—194	+228	+1,131
1866	+390	+205‡	—4,817	+1,042	—3,180
1867	+261	+35	—5,295	+1,032	—3,967
1868	+829	+81	—4,405	+1,092	—2,403
1869	+1,670	+158‡	—2,937	+1,066§	—43
1870	—88	+23‡	—3,696	+818§	—2,943
1871	—2,812	— ‡	—1,242	+417	—3,637
1872	—23	—52	—1,190	+520	—745
1873	—187	Not distinguished.	—42	+826	
1874	—347	—1	—901	+1,390	+141
1875	+750	+341‡	—251	+1,224	+2,064
1876	+1,234	+1,336‡	—335	+1,571	+3,806
1877	+2,048	+178‡	+143	+2,979	+5,348
1878	+1,620	+106‡	—1,714	+3,242	+3,254
1879	+178	+140	—1,808	+1,461	—29
1880	+1,102	+66	—2,616	+1,259	—189
1881	+951	+106	—123	+647	+1,581
1882	+402	+173‡	—1,505	+820	—110
1883	+861	+216	—1,247	+1,375	+1,205
1884	+761	+50	—527	+1,821	+2,105
1885	+374		—1,011	+2,943	

* From 1858 to 1866 years ended 30th April. From 1867 years ended 31st March.

† Years ended 30th June.

‡ For these years the imports of silver from China into France are not separately stated, but they are believed to have been small. The excess given in the table may therefore require a slight correction.

§ The excess of imports from the United States in 1862 and 1864 includes the excess of imports from the United States into Japan, and in 1869 and 1870 the excess of imports into Singapore.

NOTE.—Foreign moneys have been converted at the following rates:—francs at the rate of 25, rupees at the rate of 10, and dollars at the rate of 4½ to the £ sterling.

(G.)—STATEMENT showing the VALUE of SILVER ORE, or ORE of which the greater part in VALUE is SILVER, imported into the UNITED KINGDOM in each Year from 1855 to 1885 inclusive. (See Question 653.)

Year.	Value.	Year.	Value.	Year.	Value.
	£		£		£
1855	564,580	1866	275,599	1876	499,775
1856	354,970	1867	165,587	1877	562,537
1857	299,511	1868	147,690	1878	529,785
1858	209,154	1869	178,398	1879	724,515
1859	342,637	1870	299,726	1880	633,360
1860	382,806	1871	953,956	1881	688,176
1861	289,373	1872	2,188,010	1882	750,079
1862	331,564	1873	1,020,593	1883	1,030,542
1863	272,826	1874	769,355	1884	1,089,768
1864	251,568	1875	545,164	1885	1,085,227
1865	382,391				

(H.)—TABLE showing the (AVERAGE) PER-CENTAGE of YEARLY PRICES to the MEAN PRICE of STAPLE ARTICLES in the NEW YORK MARKET from 1825 to 1880, and indicating the Annual Variations in the Purchasing Value of Money measured by the Prices of the Commodities named.

Taken from the Ninth Report of the Director of the Mint, United States (see Question 743).

Year.	Per-centage to Mean of Staple Articles.	Year.	Per-centage to Mean of Staple Articles.	Year.	Per-centage to Mean of Staple Articles.	Year.	Per-centage to Mean of Staple Articles.
1825	104·4	1839	108·8	1853	99·4	1867	113·0
1826	102·2	1840	95·3	1854	107·0	1868	107·6
1827	101·2	1841	92·6	1855	111·1	1869	108·2
1828	98·9	1842	81·0	1856	112·2	1870	118·1
1829	96·6	1843	80·0	1857	119·8	1871	108·1
1830	92·6	1844	82·7	1858	99·7	1872	112·6
1831	97·4	1845	86·3	1859	100·6	1873	107·6
1832	99·0	1846	85·7	1860	100·3	1874	106·8
1833	96·1	1847	92·6	1861	98·0	1875	98·3
1834	88·6	1848	82·8	1862	111·6	1876	94·2
1835	99·1	1849	83·5	1863	119·4	1877	98·0
1836	109·6	1850	88·9	1864	110·1	1878	88·0
1837	100·2	1851	89·3	1865	123·0	1879	94·7
1838	101·0	1852	91·9	1866	119·1	1880	90·3

APPENDIX IV.

Papers put in by Mr. A. Sauerbeck. See Question 904.

(A.) THE COURSE OF PRICES OF COMMODITIES IN ENGLAND, from the STATISTICAL SOCIETY'S JOURNAL.

SUMMARY OF INDEX NUMBERS. GROUPS OF ARTICLES, 1867-77 = 100.

	Vege- table Food (Corn, &c.).	Animal Food (Meat, &c.).	Sugar, Coffee, and Tea.	Total Food.	Minerals.	Textiles.	Sundry Mate- rials.	Total Mate- rials.	Grand Total of 45 com- modities.	Silver.*	Average Index Nos. of Prices for 10 Years.	
1846	106	81	98	95	92	77	86	85	89	97.5	1837-46	93
1847	129	88	87	105	94	78	86	86	95	98.1	1838-47	93
1848	92	83	69	84	78	64	77	73	78	97.8	1839-48	91
1849	79	71	77	76	77	67	75	73	74	98.2	1840-49	88
1850	74	67	87	75	77	78	80	78	77	98.7	1841-50	86
1851	73	68	84	74	75	75	79	76	75	99.9	1842-51	83
1852	80	69	75	75	80	78	84	81	78	99.9	1843-52	82
1853	100	82	87	91	105	87	101	97	95	101.2	1844-53	83
1854	120	87	85	101	115	88	109	104	102	101.1	1845-54	85
1855	120	87	89	101	109	84	109	101	101	100.7	1846-55	86
1856	109	88	97	99	110	89	109	102	101	101.0	1847-56	88
1857	105	89	119	102	108	92	119	107	105	101.5	1848-57	89
1858	87	83	97	88	96	84	102	94	91	101.0	1849-58	90
1859	85	85	102	89	98	88	107	98	94	102.0	1850-59	92
1860	99	91	107	98	97	90	111	100	99	101.4	1851-60	94
1861	102	91	96	97	91	92	109	99	98	99.9	1852-61	96
1862	98	86	98	94	91	123	106	107	101	100.9	1853-62	99
1863	87	85	99	89	93	149	101	115	103	101.1	1854-63	100
1864	79	89	106	88	96	162	98	119	105	100.9	1855-64	100
1865	84	97	97	91	91	134	97	108	101	100.3	1856-65	100
1866	95	96	94	95	91	130	99	107	102	100.5	1857-66	100
1867	115	89	94	101	87	110	100	100	100	99.7	1858-67	99
1868	113	88	96	100	85	106	102	99	99	99.6	1859-68	100
1869	91	96	98	94	89	109	100	100	98	99.6	1860-69	101
1870	88	98	95	93	89	106	99	99	96	99.6	1861-70	100
1871	94	100	100	98	93	103	105	101	100	99.7	1862-71	100
1872	101	101	104	102	127	114	108	115	109	99.2	1863-72	101
1873	106	109	106	107	141	103	106	114	111	97.4	1864-73	102
1874	105	103	105	104	116	92	96	100	102	95.8	1865-74	102
1875	93	108	100	100	101	88	92	93	96	93.3	1866-75	101
1876	92	108	98	99	90	85	95	91	95	86.7	1867-76	101
1877	100	101	103	101	84	85	94	89	94	90.2	1868-77	100
1878	95	101	90	96	74	78	88	81	87	86.4	1869-78	99
1879	87	94	87	90	73	74	85	78	83	84.2	1870-79	97
1880	89	101	88	94	79	81	89	84	88	85.9	1871-80	96
1881	84	101	84	91	77	77	86	80	85	85.0	1872-81	95
1882	84	104	76	89	79	73	85	80	84	84.9	1873-82	93
1883	82	103	77	89	76	70	84	77	82	83.1	1874-83	90
1884	71	97	63	79	68	68	81	73	76	83.3	1875-84	87
1885	68	88	63	74	66	65	76	70	72	79.9	1876-85	85
											1877-86	82

TABLE OF AVERAGE OF INDEX NUMBERS (PER-CENTAGES), 1867-77 = 100.

Periods.	Corn, &c.	Meat and Butter.	Sugar, Coffee, and Tea.	Total Food.	Minerals.	Textiles.	Sundry Materials.	Total Materials.	Grand Total.	Silver.*
1818-27	109	90	151	111	128	105	106	112	111	98†
1828-37	95	78	127	96	97	94	92	91	93	98†
1838-47	102	80	122	99	93	82	93	90	93	98
1848-57	95	79	87	88	93	80	94	89	89	100
1858-66	91	89	100	92	94	117	103	105	99	100.9
1867-77	100	100	100	100	100	100	100	100	100	96.4
1878-85	82	99	79	88	74	73	84	78	82	84.1
1885	68	88	63	74	66	65	76	70	72	79.9
1853-77	100	93	99	97	100	104	103	102	100	99
1848-52	80	72	78	77	77	72	79	76	76.4	99

* Silver compared with 60.84d. per oz., being the parity between gold and silver at 1:15½.

† Silver 1818-37, approximate value.

(B.) PRINCIPAL ARTICLES, FOOD, and RAW MATERIALS according to FIGURES published in the STATISTICAL SOCIETY'S JOURNAL.

	Prices.			Index Nos., 1885. 1867-77 = 100.	Values of Imports and Home Production.	
	Average, 1853-77.	Average, 1867-77.	1885.		Mill. £ and dec. altered to 1885 Level.	Mill. £ and dec., average Quantities of 1883-85 at average values of 1867-77.
Wheat, English - - - qtr. s.	54	54½	32¾	60 } 61	45·32	74·30
„ American - - - „ „	—	56	35	62	—*	—*
Flour, town made, white - 280 lbs. „	46½	46	29	63	20·48	26·60
Barley, English - - - qtr. „	37	39	30	77	25·60	32·40
Oats - - - - - „ „	25	26	20½	79	7·81	11
Maize, American, mixed - - - „	33½	32½	23	71	18·05	28·20
Potatoes, good English - - - ton. „	108	117	75	64	2·45	3·50
Rice, Rangoon (or Madras) - - - cwt. „	10½	10	7	70	88 }	45·40
Beef, prime - - - 8 lbs. d.	53	59	52	88	39·95	45·40
„ middling - - - - - „ „	45½	50	44	88	87 }	19·90
Mutton, prime - - - - - „ „	58½	63	56	89	17·31	19·90
„ middling - - - - - „ „	51½	55	47	85	89 }	22·40
Pork, large or small - - - - - „ „	51	52	45	87	19·74	22·40
Bacon, Waterford - - - - - cwt. s.	69½	74	68	92	20·74	23·30
Butter, Friesland, fine - - - „ „	117	125	111	89	59 }	30·20
Sugar, West Indian, refining - - - „	23½	23	13½	59	18·42	30·20
„ beet - - - - - „ „	—	24	14½	62 }	3·06	4·70
„ Java - - - - - „ „	29½	28½	17½	62	9·92	15·50
Coffee, plantation (low middling) - - - „	76	87	60	65	16·02	26·70
„ Brazil (good) - - - - - „ „	58	64	39	60	4·16	7·30
Tea, Congou, common - - - lb. d.	11½	11½	6½	57	3·07	3·70
„ average import price - - - „ „	17½	17½	12	57	1·71	3
Iron, Scotch pig - - - - - ton. s.	64	69	42	75 }	54·83	74·10
„ bars - - - - - „ £	8	8½	4½	72 }	35·59	57·40
Copper, Chili, bars - - - - - „ „	87	75	48	63 }	3·80	5·20
„ English tough cake - - - „ „	96	81	47	73	2·05	2·50†
Tin, Straits - - - - - „ „	112	105	87	82	3·34	5·30
Lead, English pig - - - - - „ „	21½	20½	11½	63	25·38	41·60
Coals, Wallsend Hetton, in London - - - s.	20½	22	16½	50 }	2·09	3·80
„ average export price - - - „ „	10½	12½	9	55 }	9·50	10†
Cotton, middling Uplands - - - lb. d.	10½	9	5½	94 }	1·75	2·30†
„ fair Dhollerah - - - - - „ „	7½	6¾	4½	76	1·16	1·50
Flax, Russian - - - - - ton. £	49	47	34½	78	0·94	1·20
Hemp, Manilla, fair - - - - - „ „	38	43	35	73	4·53	6·20†
„ St. Petersburg clean - - - „ „	36	35	29	55 }	1·87	3·40
Jute, good medium - - - - - „ „	19½	19	12	60 }	1·86	3·10†
Wool, Merino, Pt. Phillip fleece - - - lb. d.	21½	21½	16½	75 }	1·05	1·40
„ „ Adelaide grease - - - „ „	10½	9½	6½	72 }	2·16	3
„ Lincoln half-hogs - - - - - „ „	19½	19½	9½	81 }	14·01	17·30†
Silk, Tsatlee - - - - - s.	22	23	12½	95 }	—	—
Hides, River Plate, dry - - - „ d.	9½	9	8½	94 }	—	—
„ „ salted - - - - - „ „	—	7	6½	76	—	—
Leather, crop hides, 30-45 lbs. - - - „	15½	16	15	77	—	—
Tallow, St. Petersburg Y. C. - - - cwt. s.	48½	45	38	78	—	—
„ town - - - - - „ „	49	45	30½	77	—	—
Oil, palm - - - - - ton. £	40½	39	30	78	—	—
„ olive - - - - - tun. „	53	50	39	73	—	—
„ linseed - - - - - ton. „	33	30	22	55 }	—	—
Seeds, linseeds - - - - - qtr. s.	60	60	44	60 }	—	—
Petroleum - - - - - gall. d.	—	12½	6½	75 }	—	—
Soda, crystals - - - - - ton. s.	—	92	55	72 }	—	—
Nitrate of soda - - - - - cwt. s.	15	14	10½	81 }	—	—
Indigo, Bengal, good consuming - - - lb. „	6¾	7½	5½	94 }	—	—
Timber, hewn - - - - - load. „	66	60	48	76	—	—
„ sawn or split - - - - - „ „	57	54	45	77	—	—
45 commodities, Total - - - - -	—	—	—	3,234	439·72	617·40
Average - - - - -	—	—	—	71·9	71·2	100

* Included with wheat.

† Imports only.

‡ Exports of Alkali.

(C.) SUNDRY ARTICLES, FOOD and RAW MATERIALS.

(Prices marked thus * are from market quotations ; all other prices are from the Board of Trade Returns.

			Prices.		Index Nos., 1885.	Value of Imports or Exports.	
			Average, 1867-77.	1885.		1885, Actual Mill. £ and dec.	1885, altered to the Level of 1867-77.
Beer and ale, exported	-	brl. s.	79.07	75.34	95	1.65	1.74
Bones, except whalebone	-	ton £	6.42	5.92	92	0.44	0.48
Brunstone	-	cwt. s.	6.73	5.09	76	0.18	0.24
Bristles	-	lb. d.	37.08	33.92	92	0.42	0.46
Caoutchouc	-	cwt. £	9.82	11	112	1.98	1.77
Cheese	-	" "	2.93	2.22	76	4.07	5.35
Cocoa	-	lb. d.	6.65	8.43	127	0.82	0.65
Currants	-	cwt. s.	24.92	25.85	104	1.46	1.40
Cutch	-	ton £	21.55	21.42	100	0.56	0.56
Cochineal	-	cwt. "	13.34	6	45	0.09	0.20
Drugs, bark, Peruvian	-	" "	10.90†	6.83	63	0.87	1.38
" sulphate of quinine	-	oz. s.	7.50*	3.25*	43	?	?
" opium	-	lb. "	20.64†	12.85	62	0.46	0.74
Dyewood, logwood, Jamaica	-	ton £	5.36*	4.87*	91	0.53	0.58
Eggs	-	doz. d.	8.92	8.42	94	2.93	3.11
Feathers, ornamental	-	lb. s.	48.96†	39.78	81	1.50	1.85
Fish, imported	-	cwt. "	25.48	26.24	103	2	1.94
" herrings, exported	-	brl. "	28.69	24.55	86	2.02	2.35
Guano	-	ton £	11.41	9.70	85	0.25	0.29
Gutta-percha	-	cwt. "	8.35	6.45	77	0.35	0.45
Hair, goats'	-	lb. d.	32.60	15.91	49	0.95	1.94
Hops	-	cwt. £	4.50	3.75	84	1	1.19
Lard	-	s. "	55.70	36.88	66	1.61	2.15
Oil, cocoa-nut	-	ton £	40.25	29.78	74	0.28	0.37
" rapeseed	-	" "	39 *	25.75*	66	0.37	0.56
" sperm	-	tun "	92.60	47.62	51	0.08	0.16
" train	-	" "	35.22	26.52	75	0.45	0.60
" turpentine	-	ton "	30.18	25.16	83	0.39	0.47
Oil-seed cake	-	" "	9.18	7.18	78	2.03	2.60
Onions	-	bush. s.	4.43†	2.78	63	0.49	0.78
Oranges	-	" "	9.12	6.80	75	1.48	1.97
Quicksilver	-	bottle £	11.41*	6 *	53	0.33	0.62
Raisins	-	cwt. s.	34.51	32.68	95	0.97	1.02
Rags and paper-making materials	{ rags - " esparto, &c.	ton £	17.13	13.16	77	0.47	0.61
Rosin	-	cwt. s.	7.46	5.98	80	1.79	2.24
Salt, exported	-	cwt. s.	8.66	4.83	56	0.32	0.57
Saltpetre	-	ton "	12.95	14.59	113	0.67	0.60
Seeds, clover and grass	-	cwt. "	22.60	16.82	74	0.27	0.36
" cotton	-	ton £	51.78	46.67	90	0.74	0.82
" rape	-	" "	8.56	6.85	80	1.85	2.31
" silk, knubs or husks, and waste	-	qtr. "	2.65	1.62	61	0.88	1.44
Shellac	-	cwt. "	15.19	12.73	84	0.68	0.81
Shumach	-	s. "	110 *	73 *	66	0.38	0.57
Skins, goat	-	ton £	16.07	14.61	91	0.16	0.18
" seal	-	each d.	30.30	22.29	73	0.53	0.73
" sheep	-	s. "	8.26	15.84	192	0.46	0.24
Spelter	-	d. "	27.02	29.12	108	1.03	0.95
Spices, cinnamon	-	" "	21.80*	14 *	64	0.85	1.33
" pepper	-	ton £	24.61	8.82	36	0.06	0.17
" other sorts	-	lb. d.	5.20	7.35	141	0.97	0.69
Spirits, brandy	-	" "	6.25	5.29	84	0.45	0.54
" rum	-	gall. s.	7.05	8.93	127	1.24	0.98
" other sorts	-	" "	2.16	1.59	74	0.55	0.74
Teeth, elephants', &c.	-	" "	1.69	1.82	108	0.35	0.32
Tobacco, unmanufactured	-	cwt. "	38.12	50.18	132	0.50	0.38
Valonia	-	lb. d.	8.27	7.92	96	3.85	4.01
Wine	-	ton £	18.30	15.77	86	0.47	0.55
Wood, staves	-	gall. s.	6.97	7.01	101	5.13	5.08
" mahogany	-	load £	8.26	4.32	52	0.54	1.04
Yeast, dried	-	ton £	9.24	8.70	94	0.49	0.52
	-	cwt. "	2.35	2.79	119	0.82	0.69
61 articles, Total	-		—	—	5175	59.51	69.44
Average	-		—	—	84.8	85.7	100

† Average of seven years, 1871-77 only.

(D.) MANUFACTURED and PARTLY MANUFACTURED ARTICLES EXPORTED according to BOARD OF TRADE RETURNS.

	Prices.		Index Nos., 1885. — 1867-77 = 100.	Values of Exports.	
	Average, 1867-77.	1885.		1885, Actual Mill £ and dec.	1885, altered to the Level of 1867-77.
Alkali - - - - - cwt. s.	9.25	5.87	63	1.96	3.11
Arms, fire-arms - - - - - each "	30.46	29.92	98	0.38	0.39
" gunpowder - - - - - lb. d.	6.03	5.98	99	0.32	0.32
Bags, empty - - - - - doz. s.	7.70	4.37	57	0.78	1.37
Bleaching materials - - - - - cwt. "	9.78*	6.73	69	0.51	0.74
Books, printed - - - - - " £	11.14	9.64	87	1.14	1.31
Cement - - - - - " s.	2.59	2.20	84	0.8	0.96
Candles - - - - - doz. lbs. "	8.22	6.14	75	0.20	0.27
Cordage and twine - - - - - cwt. "	56.54	43.31	76	0.38	0.50
Cotton yarn - - - - - lb. d.	17.46	11.58	66	11.87	18
" piece goods, plain - - - - - yard "	3.40	2.33	68	30.57	44.96
" " printed - - - - - " "	4.77	3.47	73	17.71	24.53
" stockings and socks - - - - - doz. prs. s.	6.81	6	88	0.52	0.59
" thread for sewing - - - - - lb. d.	41.28	37.74	91	2.37	2.60
Glass, plate - - - - - sq. foot s.	2.36	1.27	54	0.25	0.46
" flint - - - - - cwt. "	55.14	42.51	77	0.28	0.37
" common bottles - - - - - " "	10.29	9.57	93	0.35	0.38
" other sorts - - - - - " "	28.71	16.65	58	0.09	0.13
Hats of all sorts - - - - - doz. "	30.03	21.34	71	1.11	1.56
Leather, boots and shoes - - - - - doz. prs. "	68.26	58.09	92	1.63	1.77
Linen, linen yarn - - - - - lb. d.	15.93	14.26	89	0.99	1.11
" jute yarn - - - - - " "	3.85	2.13	55	0.27	0.49
" manufactures, white or plain - - - - - yard "	7.40	6.35	86	3.65	4.24
" " printed - - - - - " "	8.31	6.87	83	0.21	0.25
" " sail-cloth - - - - - " "	13.74	10.83	79	0.18	0.23
" " thread for sewing - - - - - lb. "	29.80	30.63	103	0.34	0.33
" jute manufactures - - - - - yard d.	3.69	2.13	58	1.90	3.28
Metals, iron, bar, angle, bolt, and rod - - - - - ton £	9.27	6.13	66	1.62	2.43
" " railroad - - - - - " "	9.46	5.47	57	3.90	6.84
" " wire - - - - - " "	18.89	12.51	66	0.69	1.03
" " sheets and plates - - - - - " "	13.66	8.13	60	0.91	1.52
" " galvanised - - - - - " "	22.93	13.41	59	1.76	2.98
" " hoops - - - - - " "	10.58	6.69	63	0.55	0.87
" " tinned plates - - - - - " "	25.91	14.84	57	4.43	7.77
" " cast or wrought - - - - - " "	16.09	11.53	72	4.01	5.57
" " steel, unwrought - - - - - " "	33.59	16.99	51	1.03	2.05
" " manufactures of steel - - - - - " "	63.27	31.43	49	0.41	0.83
" copper, yellow metal - - - - - cwt. "	3.70	2.32	63	0.97	1.54
" " of other sorts - - - - - " "	4.56	2.92	64	1.23	1.92
" brass of all sorts - - - - - ton "	5.11	3.96	77	0.36	0.47
" lead, pig, sheet, and pipe - - - - - " "	21.31	12.25	58	0.47	0.81
" zinc, wrought and unwrought - - - - - " "	21.72	13.28	61	0.10	0.16
Oil and floor cloth - - - - - sq. yard d.	15.40*	13.03	85	0.61	0.72
Paper - - - - - cwt. £	2.94	1.95	66	1.43	2.14
Silk piece goods - - - - - yard s.	3.52	3.72	106†	1.12	1.06
Soap - - - - - cwt. "	26.12	23.50	90	0.47	0.52
Woollen and worsted yarn - - - - - lb. d.	35.67	24.19	68	4.38	6.44
" " cloths, &c. - - - - - yard "	38.32	40.23	105†	7.70	7.33
" " flannels, &c. - - - - - " "	18.03	13.08	72	0.94	1.31
" " stuffs, &c. - - - - - " "	12.61	9.35	74	7.74	10.46
" " carpets, &c. - - - - - " "	36.62	25.74	70	1.19	1.70
51 articles, Total - - - - -	—	—	3,751	128.79	182.72
Average - - - - -	—	—	73.6	70.5	100

* Average of 1871-77 only.

† Higher average, probably on account of changes in the classification; prices have certainly fallen.

(E.) SUMMARY OF RESULTS.

The following statement gives the result of the three tables (B, C, and D). As regards the value of sundry small articles, and of manufactured goods, the home production of the former, and the home consumption of the latter has not been included, as no sufficient data are available. The sum of 80,000,000*l.* has, however, been added for beer, spirits, and other articles, which are presumed to have fallen on the average only to a moderate extent, say 5 per cent., and it may fairly be assumed that any articles

not comprised in these lists have, on the average, followed very much the same course as those given.

It will be seen that the average decline of all the 157 descriptions of commodities according to index numbers is 22½ per cent. as compared with the average of 1867-77; but allowing for quantities according to the importance of each article, it amounts to 26 per cent., which is only 2 per cent. less than that of the 45 principal commodities treated in the general tables.

	According to Index Nos.		According to Quantities.		
	Total Index Nos., 1885.	Average. 1867-77 = 100.	Value on the Basis of the Average Prices of 1867-77, Mill. £ and dec.	Value, 1885. Mill. £ and dec.	Ratio, 1885. 1867-77 = 100.
45 principal articles - - -	3,234	71·9	617·4	439·7	71·2
61 sundry articles - - -	5,175	84·8	69·4	59·5	85·7
Beer, spirits, &c. - - -	—	—	84·2	80	95·
51 manufactured and partly manufactured articles.	3,751	73·6	182·7	128·8	70·5
157 articles - - - -	12,160	77·5	953·7	708	74·2
Average decline in 1885 as compared with 1867-77.	—	22·5 %	—	—	25·8 %

The index number for the 45 principal commodities in 1886 is only 69 (1867-77 = 100), and the ratio according to quantities only 68·1. The index number for silver is 74·6, or 25·4 per cent. below the former normal point. Taking all the above 157 articles together and allowing for quantities the fall in 1886 as compared with 1867-77 will amount to 29 per cent.

APPENDIX V.

Papers put in by Mr. Barbour.

(A.) See Question 1136.

The silver remittances from treasuries in the plains to Simla and Kasauli (a sub-treasury of Simla) during the last 25 years have been as follows :—

	Rs.
1861-62 - - -	12,10,000
1862-63 - - -	18,34,500
1863-64 - - -	20,70,000
1864-65 - - -	26,65,000
1865-66 - - -	25,04,000
1866-67 - - -	16,88,400
1867-68 - - -	27,35,500
1868-69 - - -	23,82,000
1869-70 - - -	21,77,000
1870-71 - - -	24,15,950
1871-72 - - -	19,75,200
1872-73 - - -	22,62,000
1873-74 - - -	19,67,000
1874-75 - - -	19,12,000
1875-76 - - -	27,97,000
1876-77 - - -	24,72,000
1877-78 - - -	36,23,000
1878-79 - - -	44,10,000
1879-80 - - -	37,90,000
1880-81 - - -	32,93,000
1881-82 - - -	32,00,100
1882-83 - - -	32,88,200
1883-84 - - -	41,15,000
1884-85 - - -	31,48,000
1885-86 - - -	24,68,000
Total - - -	6,64,02,850

The amount of silver brought to Simla, otherwise than in remittances on account of Government, may be neglected. European and native bankers and traders replenish their resources when necessary by currency notes, which the Simla Treasury is always prepared to cash.

The amount of silver brought by visitors is insignificant. Remittances of coin to the plains are never made, either by Government, or bankers, or merchants. Remittances are made either by currency notes or by treasury bills on Bombay, Calcutta, Umballa, Lahore, and Delhi, which the treasury is always prepared to grant. The currency notes supplied to the Simla Treasury during the last three years have been—

	Rs.
1883-84 - - -	8,34,000
1884-85 - - -	13,45,000
1885-86 - - -	15,41,000

The treasury bills issued by the Simla Treasury during the last three years have been—

	Rs.
1883-84 - - -	7,80,700
1884-85 - - -	14,75,400
1885-86 - - -	19,69,500

The aggregate of these notes and bills represent remittances on account of banking, trading, &c. made to the plains.

A portion of the silver sent to Simla by Government eventually returns to the plains. The Simla market is supplied with cattle, grain, and miscellaneous supplies largely from the plains. A large portion of these supplies is brought by itinerant dealers, who take back cash with them for fresh purchases in the villages where currency notes would not be accepted. I have not been able to procure any satisfactory information from the Simla octroi returns, as it is impossible to make any accurate distribution of the amount of business done by large dealers, who would not remit cash, and by itinerant traders with small capital, who would take back cash. Most of the grain supply of Simla is brought up by zamindars from Ludhiana and Ferozepore, who take back coin. The retail grain dealers are mostly Hoshiarpore and Kangra men, who come to Simla for the season, and are believed to take back their profits in coin. The cost of carriage of supplies is also considerable, and nearly all of it is taken back in cash. So are the savings of carpenters, masons, and domestic servants from the plains. Looking to the class of people who take back coin, and to the fact that it is certainly not taken in large quantities at a time, I do not think that it can

exceed one third of the amount sent to Simla by Government, or about 11 lakhs yearly. Applying this to the results of the past six years, it may be taken that the present annual absorption of silver by the hill population is about 22,00,000 a year. This result is the more curious when it is considered how sparse the hill population is, and that the Thibet traders ordinarily take back grain and not silver. I think that the hill population is acquiring wealth rapidly. It is certain that many of the hill Rajas, notably those of Rampore, Busahir, and Bilaspore, have accumulated large stores of silver; and it cannot have escaped observation how the fact of growing wealth is reflected in the amount of silver and gold ornaments now worn by hill women. It is nearly 10 years since I first came to Simla, and the change in this respect in that period is sufficiently striking.

(Signed) E. J. SINKINSON,
Simla, Accountant General, Punjab.
2nd October 1886.

(B.) See Question 1145.

LETTER ON THE SUBJECT OF THE HOARD OF THE MAHARAJAH OF BURDWAN.

Bun Abash, Burdwan,
16th September 1886.

MY DEAR,
IN reply to your letter of day before yesterday's date, I have the pleasure to send the following information that I have been able to procure. It is very difficult to answer all the questions satisfactorily.

Through fear that the Marhattas might take away whatever they found in the house, and that the householders would have nothing to fall back upon, it was thought necessary in those days to keep a large amount of savings under ground for the time of need. Besides, in the time of the Mogul Emperors, the country was not so safe as it is now-a-days under the British rule, and there was no other way of investment than buying landed property, precious metals, jewels, &c.

So they used to have large sums in cash, and also because the people of those days did not have the same confidence in the Government of the country as they have now; they preferred keeping their savings in hard cash within easy reach, and in the shape of precious stones and metals.

Ladies of the Hindoo household were, as a rule, uneducated in those days (and the majority of them are still no better), and for their benefit it was not thought proper to invest in securities, as when there was no male member in a family, it would be hard for the uneducated ladies to deal with the securities or other investments which might necessitate their appearing in court and undergoing some expenses to get their just dues from the court, in addition to the degradation they would have to submit to.

Another reason why people (especially poorer people, who cannot save more than 100 or 200 rupees, and have some ornaments) like to leave for their wives and families behind them hard cash and ornaments, is that they cannot afford to have iron safes or strong boxes to keep their money in in the shape of currency and promissory notes. They generally put their things within *brass lotas* or *Bahugunas*, and then bury them under ground somewhere in the room they sleep in; as a rule they prefer the ground below their beds for that purpose.

With reference to the description of the several treasure houses in the estate, their dimension, and their contents. There are three rooms which are known by the name of *Toshakhana*—

(a.) One large room measuring about 48 feet in length, 14' 6" in breadth, and 13' 9" in height, where gold and silver ornaments and ornaments set with precious stones are kept. These articles are kept in almirahs and boxes of all descriptions, and also some gold plates and cups, *Thalees* and *Katorahs* as well as washing bowls, jugs, &c.

- (b) There is another room where silver *Thalees* and *Katorahs*, *Rakabees*, *aterdan*, *golappas*, *nemokdan*, glass cups,* *gharras*, *lotas*, washing sets and all other things for ordinary use are kept, the room measuring L-17-9, B-15-6, H-13-9.
- (c) There is a third room where silver plates and dishes, forks, spoons, silver-handled table knives, tea sets, &c., are kept (English dinner and breakfast sets), measuring about L-15, B-10-6, H-13-9.

The rooms marked (a), (b) are under lock, and the doors of the rooms having been bricked up, and we having no list to show what they contain, I cannot give an idea as to the value of the contents. Of the contents of the latter room we have made an inventory, and they would come up to about 80,695 tolahs of silver, valued at Rs. 80,695.

There are four other rooms :—

- (a.) One of these has been lately fitted up since the estate came under the court, and contains gold and silver ornaments, and ornaments set with precious stones, gold ornaments and throne, &c., would come up to about 10,142 tolahs valued at Rs. 1,62,278 (at the rate of 16 rupees per tolah). The room is about L-6-6, B-12-9, H-12-3.
- (b) The second and the third rooms (known as the under-rook room or reserve treasury. One for the zamindari property and another for Debutter) are the treasury where current collection of the estate is kept as well as the Government securities and debentures (the size of the zamindari treasury is L-22-9, B-12-9, H-12-3, and that of the Debutter treasury is L-6-9, B-15, H-12-3).
- (c.) The fourth room measures about L-22-6, B-15, H-12-3, where there are two large sized vaults prepared for hoarding the current silver coin, and since the year (1267, B.C.) some money was from time to time put in and taken out by the Maharajah Mahtab Chund Bahadoor, for the expenses of emergent and extraordinary nature, such as the late Maharajah Aftab Chund Bahadoor's marriage, Lala Bun Behari Kapur's marriage, and buying landed properties. When he died about one lakh was left in one of the vaults. In the time of Maharajah Aftab Chund Bahadoor that sum was taken out and placed at the reserve treasury, so there is no money in them now. There is one small vault in the room supposed to have contained some 9,990 or 10,000 gold mohurs of all descriptions, one kind known as *Joypoori*, another *Moorshidabadi*, and sovereigns worth in all about Rs. 1,60,000. The accumulation of these coins was begun by the Maharajah Tage Chund Bahadoor, and continued up to the time of the Maharajah Mahtab Chund, who made this vault and kept them in it; this room has also been locked, and the door is bricked up; this room is known as the *Kona Hawze*. All these above treasure rooms are situated in the apartment known as "Raj Mohal," at present occupied by the Maharanee.

- (d.) There is one toshakhana situated in another apartment called "Rung Mohal," where ornaments belonging to different gods of the family are kept, and silver *Thalees*, *sapias*, &c., for the religious purpose, the value of which is not known to us, as it is one of those rooms that have been locked up and sealed.

- (e.) *Baru Hawze*, or the room which contains several vaults, is situated in the apartment called *Jattrakhanda*, measuring about L. 32, B. 25, H. 12-9. As this room is locked up and its doors are bricked up, and I do not remember how many vaults there are in the room, and how much money in silver they contain, I am sorry I cannot give you any information on these heads.

The amount known to have been drawn from these vaults during the times of the Maharajahs Mahtab Chund and Aftab Chund Bahadoors is about Rs. 23,00,000 and out of this sum about Rs. 10,75,000 has been invested in landed properties, Rs. 5,00,000 in Government securities, and Rs. 200,000 in Himalayan Railway Debentures.

It is believed that these silver coins were hoarded by the Maharajah Tej Chund Bahadoor and his wife Maharanee Komul Coomari, Thacoranee, after him year after year, beginning from (1211, Bengali era) that is from the time when the puttani system was first introduced. According to the custom of the Burdwan Raj family the custody of these valuables was left to the Maharanee for the time being, but the vaults were never opened except in the presence of the Maharajah.

When any sum was drawn out, only some relations and trustworthy servants were admitted into the room and vault. Treasurers and Dewans used to be present outside

the room or apartment, where the sum drawn was sent out (female guards being placed in the passage) for the purpose of weighing, counting, and bagging it before it was sent to the Mint.

A part of the above-mentioned gold coins and all the silver coins bear as date the 19th year of Shaha Alum's reign. They were all coined at Moorshedabad.

I hope, in conclusion, that though I have not followed the question in due order, I have given exhaustive answers to them, all which I hope you will find useful, in spite of the rambling way in which they have been put.

Yours sincerely,

(C.) See Question 1147.

EXTRACT FROM A REPORT OF 5TH OCTOBER 1886
BY PANDIT SALIG RAM, OF THE POSTAL DEPARTMENT.

A very remarkable case of this gold-hunger came to my notice in the course of my inquiries in * * * * * district, and I think I may safely mention it here, as there seems to be no fear of this memorandum being ever published. I was told on the most reliable authority that His Highness the * * * * * of * * * * * has set apart a very large sum of money (in silver) for conversion into gold, and that every month between 40 and 45 thousand rupees' worth of gold mohurs are purchased by agents in Calcutta, Bombay, and certain other places, and sent to the * * * * *. That this has been going on for some years. A certain proportion of this gold comes by post. But parcels are very seldom addressed to the * * * * * or directed to * * * * *. The * * * * * treasurer is a native banker of * * * * *, and the parcels usually come to his address at * * * * *. The gold received is taken to * * * * *, and there deposited in a strong treasure vault or room specially set apart for it. If inquiries are made at * * * * *, the above statement will probably be contradicted, but I have not the least doubt of its correctness. Who can say that the * * * * * example is not being followed by rich men all over the country? If inquiry were made, it will most probably be found that this is really the case; but the mischief which such an inquiry will cause, by exciting distrust and suspicion of the real intentions of the Government, will be serious, and should not, I think, be risked without urgent reasons, and then only with great caution.

(D.) See Question 1150.

STATEMENT showing the AMOUNT of NATIVE COINS and ORNAMENTS tendered for coinage in the BOMBAY MINT from 1854-55.

Years.	Native Coins.	Ornaments.	Total.
	Rs.	Rs.	Rs.
1854-55	15,81,000	4,69,000	20,50,000
1855-56	10,58,000	2,31,000	12,89,000
1856-57	3,13,000	2,23,000	5,36,000
1857-58	2,02,000	50,000	2,52,000
1858-59	4,48,000	15,000	4,63,000
1859-60	2,25,000	2,24,000	4,49,000
1860-61	1,27,000	2,49,000	3,76,000
1861-62	1,53,000	12,22,000	13,75,000
1862-63	49,000	47,000	96,000
1863-64	37,000	1,63,000	2,00,000
1864-65	2,000	—	2,000
1865-66	74,000	—	74,000
1866-67	3,36,000	—	3,36,000
1867-68	19,75,000	1,53,000	21,28,000
1868-69	19,23,000	1,65,000	20,88,000
1869-70	20,18,000	1,76,000	21,94,000
1870-71	20,74,000	72,000	21,46,000
1871-72	10,88,000	12,50,000	23,38,000
1872-73	15,73,000	28,80,000	44,53,000
1873-74	23,96,000	12,17,000	36,13,000
1874-75	7,90,000	3,63,000	11,53,000
1875-76	7,10,000	75,000	7,85,000
1876-77	20,000	8,52,000	8,72,000
1877-78	—	1,24,00,000	1,24,00,000
1878-79	67,00,000	1,16,00,000	1,83,00,000
1879-80	45,00,000	92,00,000	1,37,00,000
1880-81	25,50,000	10,00,000	35,50,000
1881-82	1,00,000	4,00,000	5,00,000
1882-83	15,50,000	50,000	16,00,000
1883-84	1,25,000	50,000	1,75,000
1884-85	16,25,000	18,75,000	35,00,000
1885-86	2,00,000	3,25,000	5,25,000

* Silver vessels shaped like ordinary drinking glasses appear to be meant.

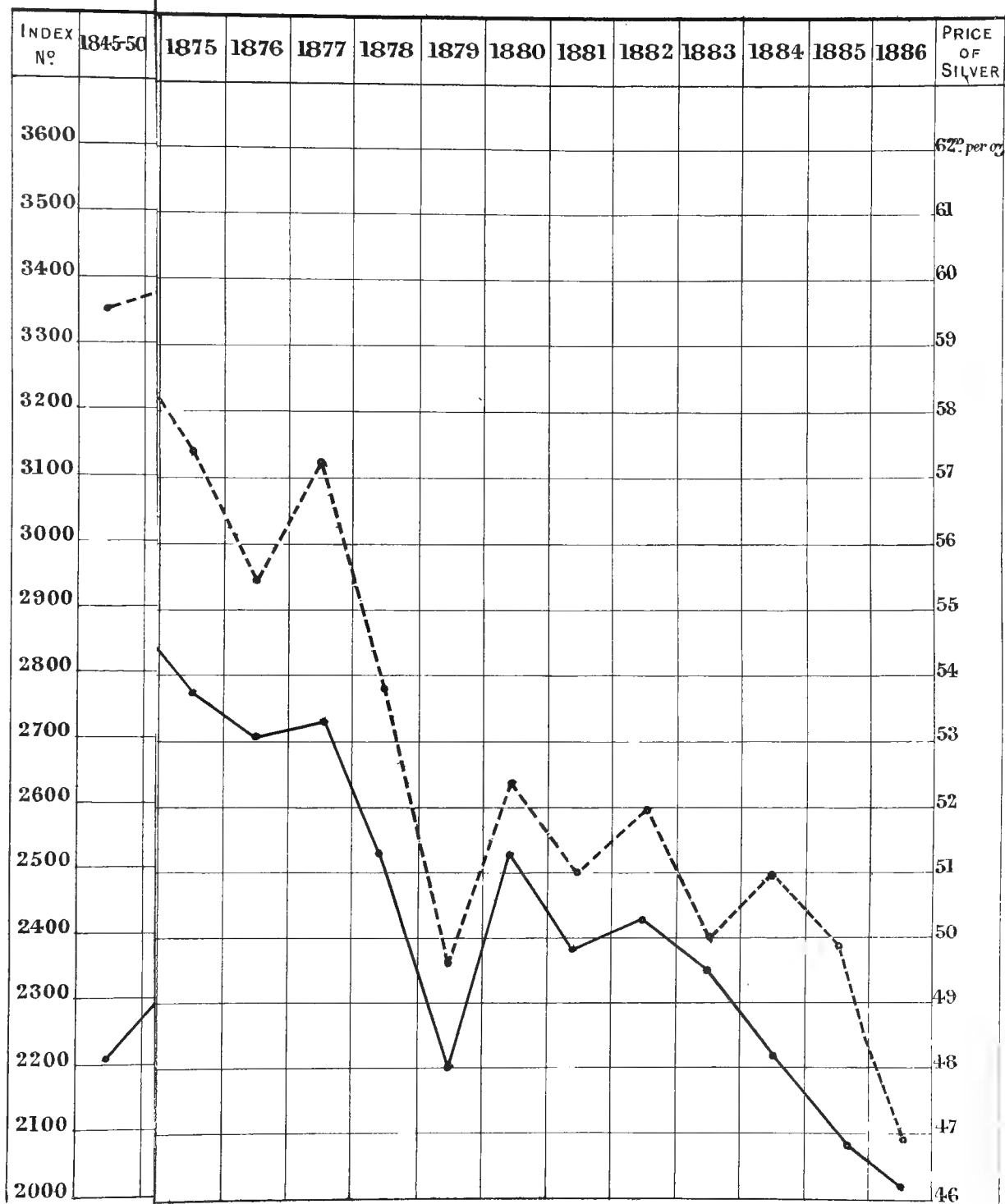
(E.) See Question 1162.

PAY OF POSTAL RUNNERS IN INDIA FROM 1855 TO 1885.

Names of Lines.	1855.	1860.	1865.	1870.	1875.	1880.	1885.	1886.
BENGAL.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.	Rs. a.
Balasore to Cuttack	4 0	4 0	3 0	5 0	5 0	{ 6 0 }	5 0	5 0
Dacca to Chittagong	4 0	4 0	4 0	5 0	5 0	{ 5 0 }	6 0	6 0
Cuttack to Angool (or Sumbalpur).	—	3 0	5 0	5 0	5 0	5 0	5 0	5 0
Purulia (Manbhoom) to Chyebassa.	5 0	4 0	4 0	4 0	4 0	3 8	4 8	4 8
Gya to Nowada -	4 0	4 0	4 0	4 0	4 0	—	—	—
Mozufferpur to Purneah -	3 0	3 0	3 8	3 8	3 8	4 0	5 0	5 0
Ranchi to Palamow -	2 0	4 0	4 0	4 0	4 0	4 0	5 0	5 0
ODDH AND NORTH-WESTERN PROVINCES.								
Lucknow to Sitapur - -	4 0	4 0	4 0	4 0	4 0	5 0	4 0	4 0
Budaon to Bareilly - -	3 0	4 0	4 0	4 0	4 0	4 0	4 0	4 0
Etawah to Manipuri -	4 0	4 0	4 0	4 0	4 0	4 0	—	—
Moradabad to Bijnur -	3 0	4 0	4 0	4 0	4 0	4 0	4 0	4 0
PUNJAB.								
Delhi (to all places)	4 0	4 0	4 0	5 0	5 0	5 0	5 0	5 0
Jullundur to Hoshiarpur -	4 0	4 0	4 0	4 0	5 0	5 0	5 0	5 0
Kohat to Bunnoo or Edwardesabad.	4 8	4 8	4 8	5 0	5 0	5 0	5 0	5 0
Dehra Ghazi Khan to Dehra Ismail Khan.	4 8	4 0	4 0	5 0	5 0	5 0	5 0	5 0
SIND.								
Hyderabad to Mohad Khans Tando.	5 0	5 0	5 0	4 8	6 0	6 0	7 0	7 0
Jerruck to Tatta -	—	—	7 0	7 0	7 0	7 0	7 0	7 0
BOMBAY.								
Ratnagiri to Vingorla -	—	5 0	6 0	8 0	7 0	7 0	7 0	7 0
Hubli to Harrihar	5 0	4 0	6 0	8 0	7 0	7 0	—	—
Dhulia to Shirpur -	5 0	5 0	6 0	8 0	7 0	7 0	6 0	6 0
CENTRAL PROVINCES.								
Jubbulpur to Mandla -	5 0	—	5 0	—	5 0	5 0	5 8	5 8
MADRAS.								
Calicut to Tellichery -	4 0	4 0	5 0	7 0	{ 7 0 }	7 0	7 0	7 0
Vizagapatam to Berhampur Ganjam.	—	3 12	5 0	6 0	{ 6 0 }	6 0	6 0	6 0
MYSORE.								
Bangalore to Mysore	4 0	4 0	4 0	5 0	6 0	6 0	—	Moiety pay. 2 4
Average (annas) -	4·05	4·56	4·95	5·17	5·14	5·24	5·42	5·38

(Signed) W. ALPIN,
Officiating Comptroller, Post Office.

NUMBERS,) AND THE PRICE OF SILVER.



Economist," and also of the gold

N^{os}

*That since 1873 the fluctuations in the
in England rise and fall together.*

APPENDIX VI.

MEMORANDUM by PROFESSOR ROBERTS AUSTEN, F.R.S., Chemist to the Royal Mint, on the Cost of Production of Silver.

There is some conflict of opinion as to the exact influence on the price of silver of the actual outlay involved in obtaining it from the earth, in the metallurgical operations incidental to its extraction from the ore, and in placing it upon the market.

M. Cernuschi indeed says "that the cost of production does not determine the value of gold and silver; that value is determined by two elements—the employment and the quantity." On the other hand, the late Mr. Bagehot* maintains "that the value of gold and silver is determined by the cost of production, just like that of all other things; that in their case, as in all other cases, what is more cheaply produced than usual would be more plentifully produced than usual, and that the purchasing power in consequence will be no doubt less." He elsewhere observes,† in discussing the Report of the Select Committee on the Depreciation of Silver (1876), that the price at which silver will settle down will in part "be determined by the cost in the least good mine which pays to keep at work."

The difficulties of an inquiry as to the actual cost of production are considerable, and arise from—

- (1.) Varying conditions in different localities.
- (2.) Irregularity and incompleteness of returns, and the indifference or reluctance of proprietors to publish full statements as to cost.

It is, moreover, very difficult to estimate the amount that should be added to the actual cost of mining and milling in consideration of the price paid for and capital invested in mining property.

The question as to whether the search for silver and its actual production does or does not afford a remunerative return for the capital expended on it has not been considered here. An attempt has simply been made to point out what are the several metallurgical processes by which silver is extracted, to collect such statements as are published dealing with cost of production, and to state the results for each of the principal processes; it being necessarily assumed that the data so collected admit of application to the total amounts of silver estimated to be produced by each of the respective processes. Sufficient allowance has, it is believed, been made for the cost of mining and transport.

The uncertainty attending any generalization as to the precious metals is indicated by the fact that, in 1875, the Director of the United States Mint, after a most careful examination of all the conditions likely to arise, gave it as his opinion that the "total production of all the mines on the Cornstock may safely be estimated at not less than 50,000,000 dollars per annum, about 45 per cent. of which will be gold." In 1884, however, when I visited the district, the mining and milling works were suspended. In the report to which reference has just been made the late Dr. Linderman observed of the mining and metallurgy of California, "The business is one of uncertainty and hazard, and, taking one year with another, the expenses no doubt equal, if they do not exceed, the production."

In previous official investigations but little attention appears to have been paid to the influence of the cost of production on the market price of silver; thus, the evidence upon this point given before the Select Committee on the Depreciation of Silver (1876) is practically limited to the statement of Mr. Pixley's belief‡ that silver is got out in certain mines in Mexico "at about 1s. 6d. an ounce," and to the expression of Mr. Bagehot's opinion, already quoted, as to the price being regulated by the cost of production under the most difficult circumstances.§

The following table gives the total production of silver in the world for 1883, that being the latest year for which complete returns are available:—

TABLE I.

	Ounces.
United States of America - -	35,737,908
Mexico - - - -	22,872,732
Germany - - - -	7,417,642
Austria - - - -	1,568,562
Spain - - - -	2,395,481
Argentine Republic - -	325,045
Colombia - - - -	587,873
Bolivia - - - -	12,376,860
Chile - - - -	4,119,125
Other countries producing less than 300,000 ounces - -	953,505
Total - - - -	88,354,733

Table II. gives the estimated amount of the silver extracted by each of the principal methods. The approximate cost of the mining and metallurgical operations involved will be given subsequently.

TABLE II.

Section.	Method by which the Silver was obtained.	Weight in Ounces.
I.	Refining of native gold - -	508,000
II.	Desilverization of lead - -	30,726,000
III.	Desilverization of copper and cupriferos products.	7,200,000
IV.	Treatment of silver ores - -	49,920,733
	Total - - - -	88,354,733

The metallurgical processes involved in the extraction of silver from its ores, although very complex, nevertheless admit of being classified in the four sections shown in the preceding table. The amounts into which the whole annual production is divided, as given in the third column, can only claim to be rough approximations. The reasons for the adoption of the figures given in this column will now be considered in some detail.

Section I.

Such silver as forms a natural alloy with gold being extracted in conjunction with that metal, and the deposit in which both metals occur being worked for gold, the extraction of the silver entails, practically, no expense over and above that which is involved in the extraction of the gold, as the silver is obtained incidentally. It would usually be necessary to purify the gold to convert it into ingots of the standard fineness met with in the market, and the cost of such parting and refining is the utmost metallurgical cost involved in the production of the silver. As this amount has to be distributed between the silver and the gold it is safe to assert that the extraction of one ounce of silver contained in gold does not exceed the cost of parting. The average official charges of the American mints for parting and refining silver and gold of the average standard of native gold is about 2½d. per ounce. The quantity of silver present in native gold varies considerably; but it has been estimated by King* that the mean fineness of the native gold of the United States is 876 parts in 1,000, and this may be taken as the average fineness for native gold generally. The alloying element is, in nearly every instance, silver, with but small quantities of copper and other metals, and these may be disregarded. Every 1,000 parts of native gold yield, therefore, 124 parts of silver. The total quantity of gold produced throughout the world in 1883 is estimated at 4,548,550 ounces,† of which 1,451,250, or nearly one-third, were produced in the United States. Nine per cent. was‡ derived from the refining of lead. Allowing an additional 1 per cent. to have been derived from cupriferos and other materials treated otherwise

* "Economist," March 4, 1876.

† "Economist," July 15, 1876.

‡ Report from Select Committee on Depreciation of Silver, 1876, question 213; see also question 230.

§ Ibid., question 1436.

* Bowie—Practical Treatise on Hydraulic Mining, p. 291.

† Mineral Resources of the United States for 1883-84, p. 320.

‡ Ibid., p. 413.

than by lead, but by processes not involving the use of mercury, there remains 90 per cent. as native gold* in one form or another. Assuming this to have been originally of the fineness above stated, it would have yielded as a bye-product 161,960 ounces of silver; calculating the total production of gold in the world on the same basis, the amount of silver obtained from it would be 507,618 ounces.

Section II.

A large proportion of the silver produced in the world is derived from association with lead ores, from which it is extracted by suitable treatment. Certain argentiferous materials are also melted with lead ores, the precious metal being in all cases collected in the lead so produced. The reduction of the silver occurring in lead ores will be effected without any extra cost beyond that requisite for the lead itself, provided that the state in which the silver is present does not necessitate any modification of the treatment demanded for the extraction of the lead alone, and this also holds good with respect to such silver ores as are added to the furnace charge, except that in this case it may be necessary to use more flux, and, consequently, more fuel and labour will be required. With these exceptions, the sole cost of the extraction of the silver from these argentiferous ores is connected with its separation from the lead produced. This is done either by crystallising out lead poor in silver from a richer alloy—the Pattinson process—or by the use of zinc—the Parkes process—or by these processes jointly. The cost of refining and desilverising the ton of argentiferous lead at Chicago in 1883 was, in the case of the Horn Silver Mining Company's lead, about 8 dollars per ton.† If, therefore, the lead be the main object of the smelting, and the silver merely a valuable bye-product, the amount of silver which must necessarily be present in the lead to pay for the cost of extraction must be of the value above stated, as in the case of the galena produced in the United Kingdom, which averages about 8·5 oz. silver per ton of lead.‡ When, however, as is usually the case, the production of lead is not the main, but rather a secondary, consideration, the above data are not applicable. This is more especially true with regard to those countries where the mines are situated far from the market or from deposits of fuel, with inefficient means of transport, and where labour and other expenses are high. Lead, in countries such as these, would not, by itself, pay to produce, and consequently ceases to be the main object of the mining and smelting operations, for the lead becomes the bye-product which serves primarily as a vehicle for the collection of the precious metals in the ores. These considerations are specially applicable as regards the American continent. At the date of publication of the "Mineral Resources of the United States for 1883-84," of the total quantity of argentiferous lead which had been desilverised in 1884, 119,965 tons, returns had been received which related to 117,608 tons. From this quantity had been obtained 21,505,248 ounces of silver and 146,830 ounces of gold. A certain proportion of this was derived from silver ores worked by lead smelters, but it is estimated § that fully 19,000,000 ounces of silver and 125,000 ounces of gold were obtained from the lead ores produced in the Rocky Mountain states and territories.

Owing to the small number of mines which are directly connected with smelting works, and to the want of published information as to cost, it is difficult to estimate the expense of mining and reducing these silver-lead ores, but in the report already referred to, two instances are given which would appear to be fairly typical. In the first case, that of the Horn Silver Mining Company, Utah,|| the ore produced was comparatively rich, and the cost of production was about 100 dollars per ton of argentiferous lead.

The detailed cost was as follows:—

	Dollars.
Cost of mining -	17·25
„ smelting -	48·43
„ desilverizing -	7·95
„ freight -	18·00
	<u>91·63</u>

It would probably be safer to take the cost of the ton of argentiferous lead at 100 dollars.

From a comparison of such other statements as to cost of production as occur in these reports, it would appear

that the cost of mining and smelting the ton of ore did not, on the whole, differ greatly from that of the Horn Silver Company. The ore produced, is, however, frequently much poorer, and in the case of the Eureka Consolidated Mining Company* the average amount of lead in the ore is about 10 per cent. At this mine and works the total cost per ton of argentiferous lead is as follows:—

	Dollars.
Cost of mining -	51·00
„ smelting -	138·20
„ desilverization and	
„ freight -	59·37
Total -	<u>248·57</u>

Taking into consideration the poorness of the ore and the heavy cost for freight, it would appear that this expenditure of 250 dollars per ton is rarely exceeded. It would further seem fair to assume that the mean cost of extraction in the United States would be shown approximately by taking the mean of the costs at the two works $\frac{100 + 250}{2} = 175$ dollars. The

price of lead at Chicago in October last was 4·10 dollars per cwt., 82 dollars per ton, while silver sold at 98 cents the ounce. The cost of working the ton of argentiferous lead being taken at the above mean, 175 dollars, it is possible to calculate the amount of silver the lead should contain in order to meet this cost, and it will be found that each ton weight of argentiferous lead must contain 95 ounces of silver; the gross value will then be made up of—

	Dollars.
Value of silver -	93·1
„ „ lead -	81·7
Total -	<u>174·8</u>

Thus, to admit of its being smelted, the ore should, on the mean, be of such a richness as to yield a lead containing 95 ounces of silver. To 117,608 tons of refined lead there were, however, 21,505,248 ounces of silver and 146,830 ounces of gold, so that each ton of argentiferous lead produced in the United States contained nearly 183 ounces of silver and $1\frac{1}{2}$ ounce of gold. Taking the relative weight of silver as 20 times that of gold—the present market value—the ton of argentiferous lead contained on the average over 200 ounces of silver. It need only have contained 95 ounces to cover the working expenses, so that, as regards argentiferous lead, the price of silver might have been less than half the market price and yet have entailed no loss on the working.

The 4,000 tons of lead produced in Mexico, South America, and Australasia may be fairly considered as having been of the average richness of the lead produced in the United States, and the cost of production may, without prejudice to the conclusions arrived at, be assumed to be the same.

The present cost of desilverizing the ton of rich lead at Freiberg amounts, as shown by results recently obtained,† to about 25s. per ton, or about 1d. per ounce of silver produced. Including the cost of refining, the expense of desilverization would still be well below $1\frac{1}{2}d.$

Nearly the whole of the silver produced in Europe is obtained from the smelting either of lead or of copper. Of the former metal the production is about 337,000 tons; and of the latter about 77,000 tons.‡ It is evident, therefore, that the larger proportion of the silver produced must be due to the smelting of lead ores, and of such ores, &c. as are added to the lead smelting charge. With regard to the amount of silver produced in the treatment of copper ores, the quantity produced at Mansfeld,§ in Prussia, in 1884 from ores which yielded 12,774 tons of copper was 74,132 kilogrammes, about 186 ounces to the ton, and as the copper obtained at these works contains an unusually large proportion of silver, it is probable that the total quantity of silver found to be worth extracting from copper ores in Europe does not exceed twice the production of the Mansfeld works, say, 150,000 kilogrammes. Of this quantity probably some 10,000 kilogrammes were produced from copper ores treated in connexion with lead ores. The total quantity of silver produced in Europe amounted to about 388,000 kilogrammes. Subtracting from this the quantity estimated to be produced from copper ores by methods other than those connected with the use of lead, the quan-

* This includes all ores treated by mercury.

† Mineral Resources of the United States for 1883-84, p. 417.

‡ Mining and Mineral Statistics of the United Kingdom for 1885.

§ p. 413 of the Report.

|| Ibid., p. 417.

* p. 418 of the Report.

† Jahrbuch für das Berg- und Hüttenwesen in Königreiche Sachsen auf das Jahr, 1886, pp. 133-146.

‡ Von Ehrenwerth, Stahl und Eisen. Vol. VI., p. 752.

§ Zeitschrift für das Berg-, Hütten und Salinenwesen im Preussisch en Staate, 1885, p. 190.

tity is obtained which is produced in the smelting of this latter metal, 238,000 kilogrammes.

As to the relative cost of production in Europe and in the United States, it is evident that, owing to much cheaper labour, nearness to the market, and greater facilities for transport, the cost of production in Europe would be much less than it is in America, were it not that the mines, as a rule, are deeper and less rich. The lead ore produced in Europe is, as compared with that of the United States, comparatively poor in silver. In the United Kingdom the lead ores contain on the average about 8.5 ounces of silver to the ton of lead. In Spain* 331,164 tons of lead ore, of little value as regards silver, and 26,047 tons of argentiferous lead ore properly so called were produced. The quantity of silver contained in this latter may be estimated from the fact that the desilverization of 3,587 tons of lead gave 4,102 kilogrammes of silver, about 36 ounces to the ton. Some rich ore is, however, exported.

In Italy† 31,191 kilogrammes of silver were produced from the desilverization of 15,000 tons of argentiferous lead, about 67 ounces to the ton.

As in these two countries only native ores are treated the results are typical of at least a portion of the lead ores of the Continent. In Germany and Austria the lead ores are usually comparatively rich in silver, but foreign ores are also imported, and as the compositions of these are not stated, the results of the treatment of the native ores are not directly obtainable.

Thus, although the European lead ores are poorer in silver than those of the United States, cheaper labour and transport, and greater facilities for smelting, render it probable that while the cost of production may be considerably less than in the United States, it cannot well exceed it.

The cost of production of the ounce of silver obtained from the desilverization of lead ores is therefore about 2s., and the total amount of silver produced from the smelting of lead ores is about :—

	Ounces.
United States - - -	21,890,000
Europe - - -	8,036,000
Elsewhere - - -	800,000
Total - - -	30,726,000

Section III.

Argentiferous Copper Ores.—The amount of silver present in copper ores is much less than in lead ores, and in the latter the precious metal is frequently the main object of the smelting, while in copper ores it is usually a valuable bye-product.

The quantity of silver present in copper ores varies greatly, and no statistics relating to the average amount are obtainable. That the amount derived from this source is comparatively small is evidenced by the fact that the cost of extraction of the silver from copper is much greater than from lead, and the quantity of copper produced annually is relatively small. The greater cost of extraction is forcibly shown in the case of the Oker Works, Germany.‡ The copper produced at these works is, by a metallurgical process, divided into two approximately equal portions, one of which contains 21 ounces of silver to the ton of copper, and the other 53 ounces. The first portion does not pay to treat, while the latter does. The cost of extraction of the silver may be taken to lie between the two, possibly a mean, 37 ounces, or, at 4s. per ounce, 7l. 8s. per ton of copper. This is, moreover, the cost per ton of copper at the Mansfeld Works§ and by the electrolytic process the expense will probably be about the same.|| Other methods of treatment of argentiferous copper ores are more expensive, and the increased cost of labour, &c. in America and elsewhere would cause the mean cost of extraction to be higher than the above estimates. It is not probable, however, that it would be greater than 50 ounces, 10l.

With regard to the richness in silver of the materials treated, the silver obtained at Mansfeld is, as already stated, about 186 ounces per ton of copper; at Oker the quantity present was 53 ounces, and "bottoms," which are worth desilverizing in other parts of the world, generally contain at least this amount. The mean amount of silver present in the ton of copper desilverized may be taken to be somewhere between the 50 and the 186 ounces in the cases mentioned, probably nearer the former than the latter, and 100 ounces per ton may be taken as a maximum. The cost of extraction of the silver present in copper ores must, when these latter are treated together with lead ores,

be but small, as the additional cost of smelting would be so, as would also be the extra cost connected with the purification, &c. of the lead. The cost of the silver produced by wet methods is somewhat more difficult to determine, but it is stated* that the cost of recovering the precious metals by the Claudet process is about 8d. per ton. The ores treated by this process in the United Kingdom in 1885 contained† a little over two grains of gold and about three-quarters of an ounce of silver per ton of ore. Gold being of the value of about 2d. per grain, the cost of extraction of the three-quarters of an ounce of silver also present was about 4d., or at the rate of 5d. per ounce. The 328,000 ounces of silver obtained in this manner in Great Britain were mainly a bye-product, costing about 5d. per ounce to produce. This is not true, however, as regards silver obtained by other methods, but if the cost of production of the ounce of silver obtained by wet processes generally be placed at 1s., this is probably a high estimate. As regards the cost of desilverization of the copper, or of the "regulus," produced during the smelting of copper by the dry way, this has already been estimated at one-half the value of the silver produced, or about 2s. per ounce. Next, as to the quantity of copper desilverized. The total quantity of copper produced in 1885 amounted to about 222,000 tons.‡ Of this quantity, 14,880 tons were produced in Great Britain from ores which had been treated, with a view to desilverization, by the Claudet process, the quantity of silver obtained being 328,000 ounces. Allowing an equal quantity of silver and copper to have been produced elsewhere by this and other wet processes (giving a total of, say, 650,000 ounces), and placing the amount desilverized by lead at 10,000 tons of copper, containing 50 ounces of silver per ton (producing 500,000 ounces), there remain about 222,000—40,000, or 182,000 tons, as the quantity of copper produced by the ordinary dry smelting processes. Now, considering the comparative poorness in silver of copper ores as compared with lead ores, and the necessity for an average contents of 50 ounces of silver per ton of copper, as previously estimated, to pay for the extraction, it is safe to assume, without prejudice to the final conclusions, that of this quantity not more than one-third was actually desilverized.

Supposing this amount to have been of the average richness estimated (100 ounces of silver per ton of copper giving $\frac{182,000}{3} \times 100$ or about 6,050,000 ounces of silver), the silver produced from copper ores and the cost in accordance with the data above given will be as follows :—

	Annual Production of Silver.	Cost per Ounce.
	Ounces.	s. d.
From Copper ores desilverized by wet processes exclusively.	650,000	} 1 0
From Copper ores desilverized by lead.	500,000	
From Copper ores desilverized during the ordinary smelting of Copper.	6,050,000	2 0
Total - - -	7,200,000	Mean 1 11

Section IV.

Silver Ores.—These ores are of very varied composition, and when not treated in connexion with the smelting of lead or of copper are treated either by amalgamation or by wet methods. By far the greater quantity of the silver is obtained by the former of these, and as wet methods are, on the whole, not more expensive than amalgamation,§ they need not be separately considered. The quantity of silver thus produced is found by subtracting the silver obtained by the processes already considered from the total production, which will give 49,920,733 ounces. This amount is mainly produced on the American continent. The ores treated are mostly true silver ores, but in some cases other metals are present in such quantities as, in conjunction with a low yield of silver, to render their mining and metallurgical treatment possible, provided local conditions are favourable. The silver ores occurring in the State of California are both surface ores and ores obtained by deep mining. The cost of mining and milling the former is

* Estadística Minera de España, 1884, p. 38.

† Annali di Agricoltura 1886, p. lx.

‡ Precious Metals in the United States, 1884, p. 601.

§ Precious Metals in the United States, 1883, p. 763.

|| Fontaine: Electrolyse, p. 268.

* Precious Metals in the United States, 1883, p. 789.

† Mineral Statistics of the United Kingdom for 1885, p. 74.

‡ Estimated by H. R. Merton & Co., London.

§ See Stetefeldt: Comparison of amalgamation with Russell's lixiviation process. Precious Metals in the United States, 1883, p. 745.

about 6½ dollars per ton.* A good example of the cost of deep mining is given in the case of the "Bonanza King"† Mine, which is situated near the highest peak of the Providence Mountains. The mine is 520 feet deep, and the ore has to be hauled for a distance of two miles. The cost of mining, hauling, and milling the ton of ore was 25·7 dollars, and it yielded silver to the value of 179 dollars. The value of the silver ore treated in California varies from 50 to 500 dollars per ton, a great portion yielding in the mill over 100 dollars per ton.‡ As a considerable proportion was produced at a cost of only 6·5 dollars per ton, it is not probable that the mean cost of extraction exceeded that at the "Bonanza King," say, 25 dollars per ton.

Comparing these results with the numerous other instances mentioned throughout the annual reports of the Director of the United States Mint on the Production of the Precious Metals, 1883 and 1884, it would appear to be reasonable to accept these statements as giving approximately the average richness of the ore treated, and the cost of mining and milling.

The cost of the ounce of silver so produced was therefore about 1s., corresponding to an expenditure of 25 dollars to obtain 100 dollars worth of silver.

In Mexico and South America cheaper labour tends to compensate for less efficient methods. Those in most general use are the Patio and Cazo processes. The cost of treatment by the Patio process has been variously estimated § at from 16 to 27 dollars per ton of ore, and by the Cazo at about 7 or 10|| dollars. Adding to this the cost of mining, say, 7 dollars, the total cost per ton varies from about 14 to 35 dollars. The ore treated contains from a few ounces to several thousand ounces per ton, and it seems probable that 25 dollars per ton may be taken to be the average expenses, and, from a comparison of various estimates,¶ it seems probable that 70 dollars for yield, or somewhat less than the average of the United States, is not far from the truth.

The final conclusions as to the actual cost of production by each of the principal methods of extracting silver would, therefore, appear to be as follows, the figures relating to the amounts produced being, for the sake of clearness, repeated from Table II. :—

Section.	Fine Silver, in ounces.	Cost per ounce of fine Silver.
I.	508,000	s. d. 0 2½
II.	30,726,000	2 0
III.	7,200,000	1 11
IV.	49,920,733	1 5
Total	88,354,763	Mean 1 8

The mean cost of production of the ounce of fine silver was, therefore, about 1s. 8d., corresponding to 1s. 6½d. per ounce standard.

GENERAL CONCLUSIONS.

It was stated at the outset of this inquiry that it was necessary to regard the data collected as to cost of production as applicable to the total amounts of silver estimated to be produced by each of the respective processes. It will therefore be well to examine the foregoing results as a whole with a view to determine what degree of confidence may be placed in the general conclusions.

Section I.

With regard to Section I., it may be safely assumed that the cost of extracting the whole of the 508,000 ounces of silver from native gold is not inaccurately represented by the 2½d. per ounce assigned to it. The amount so extracted constitutes, however, a very small proportion of the total production of silver.

* Precious Metals in the United States, 1883, p. 731.
† Ibid., p. 730.
‡ Ibid., p. 730.
§ T. Egleston. The Patio and Cazo processes for amalgamating silver ores (1884), p. 46.
|| Ibid., pp. 57 and 61.
¶ See also Percy's Metallurgy, Silver and Gold (1880), p. 580.

Section II.

Section II., on the other hand, includes one third of the total amount, and it is not possible to obtain direct evidence as to the cost of production of the whole of these 30,726,000 ozs. It will be observed that the evidence mainly rests on the statements as to cost of production at two works in the United States. These produce between them one sixteenth of the total amount of silver classified under this section, and there seems no reason to doubt that they may be considered respectively to be typical of the maximum and minimum cost of production in the United States, which itself produces no less than two thirds of the total amount of silver comprised in this section. It may be added that the mean cost per ton of argentiferous lead, 175 dollars, is nearly three times the selling price of the argentiferous lead extracted in the United Kingdom.

Since the evidence was given, the report for the year 1886 of the Broken Hill Mine, Barrier Ranges, New South Wales, a mine of very considerable importance, has been published. It states that during the year the smelting of 10,397 tons of ore yielded 1,991 tons of lead and 871,665 ozs. of silver, at a cost, including mining charges, of 4l. 12s. 0½d. per ton of ore, or at the rate of 1s. 1d. per oz. of silver produced, if the lead be considered to be of no value. The cost of production will, it is stated, be considerably reduced.*

Section III.

The amount of silver produced annually in the treatment of copper ores is estimated at 7,200,000 ozs.; of this quantity, 6,050,000 ozs. were obtained during the ordinary smelting of copper ores, and 2,382,000 ozs. of this latter amount, or one third of the total, were produced at Mansfeld at a cost which is stated to be 9½d. per ounce. Of the remainder, 328,000 ozs. were produced in Great Britain by the Claudet process, at a cost not exceeding 5d. per ounce.

Silver in this section being mainly a bye-product, mining charges of the copper ore which originally contained it are disregarded. This leaves an amount of 4,490,000 ozs., or two thirds of the total production under this section, to be accounted for, and in the absence of more precise evidence it does not seem unreasonable to account for them in the manner set forth. Although it is probable that the evidence respecting this section is the least satisfactory, it may be observed that the amount in question is small when compared with the total annual production.

Section IV.

This section, dealing with methods that involve the use of mercury, comprises more than half the total amount of silver produced annually. The figure, 25 dollars, which has been taken to represent the cost of mining, milling, and transport of the silver contained in the ton of ore is supported by a considerable amount of evidence. As regards the United States of America, an eminent authority, Professor Egleston, of the School of Mines, Columbia College, New York, stated in 1879, that "the cost of treatment to large mill companies at the Comstock Mill would not usually be as high as 8 dollars; at the Brunswick Mill the average for the year 1874 was 7·76 dollars;" he adds, however, that "the mill companies rarely charge less than 12·5 dollars on large and long contracts," and he points out that the mill companies almost always declare large dividends, while the mines are often not worked at a profit."

Another writer, Mr. Rothwell, states that the prices paid for milling Comstock ores have varied from 11 to 20 dollars per ton.

The amounts to which Professor Egleston's figures refer are very large and apply to a considerable proportion of the ores treated by mercury in the United States of America; moreover, no evidence has appeared that would lead to the supposition that the cost of extraction has varied materially since the above figures were given.

In regard to the 22,900,000 ozs. produced in Mexico, the bulk of which involved the use of mercury, there is much reason to suppose that the cost of production is fairly stated at 25 dollars per ton of ore.

Various authorities estimate the cost of the metallurgical

* Money Market Review, 5th May 1887.

processes involved in the extraction of the silver in Mexico at from 11 to 21 dollars per ton of ore, not including the cost of mining. Mr. R. E. Chism* estimates the cost of treatment by the old Mexican process at about 27 dollars per ton of ore, which includes a charge for profit to the owners of the works, but does not include superintendence or interest on cost of plant.

In a recent paper C. A. Stetefeldt,† referring to the year

1883, gives the total cost of reduction of a poor ore as 8·12 dollars per ton.

It is possible that the estimated yield of 70 ozs. to the ton of ore in Mexico may be too high. If, however, a minimum estimate of 50 ozs. per ton be adopted, the mean cost of production under Section IV. would be increased to 1s. 8d. per oz. standard, but this may be taken as the limit of error.

APPENDIX VII.

PAPERS put in by Mr BIRCH with regard to the Currency and Circulation in France, Germany, Italy, Spain, Switzerland, and Belgium. See Question 1378.

A.—BANK OF FRANCE.

MAXIMUM and MINIMUM AMOUNT of GOLD and SILVER held at various dates, with the Notes in Circulation.¹

Amounts stated in millions of pounds sterling.

Year.	Gold.		Silver.		Total Bullion.		Notes in Circulation.		
	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.	
1868 - -	35·1	26·5	19·1	12·4	52·6	39·1	53·1	44·9	
1869 - -	29·2	23·5	23·7	18·9	50·7	42·6	57·6	51·8	
1870 - -	29·6	17·3	23·2	2·8	52·7	20·2	72·6	54·4	On the 13th September 1869 commenced the forced currency of notes. Siege of Paris, September 1870 to March 1871. During these years notes of 25 francs and 20 francs were issued. In 1871 notes of 5 francs were authorised. By the Law of 15th July 1872 the maximum circulation of bank notes was raised to 128,000,000l. from 112,000,000l., at which it had been fixed on the 27th December 1871. In this year notes of 5 francs were issued. Demonetisation of silver by Germany. Last instalment of indemnity of 200,000,000l. paid. During this year notes of 20 francs and 5 francs were called in. No notes of 25 francs were issued during this year. Latin Union wholly discontinued coinage of silver. International Monetary Conference at Paris. On the 1st January 1878 the forced currency of bank notes ceased. In December 1880 it was determined to issue notes of 50 francs. The Governor of the Bank of France in his report for 1881 refers to the efforts made to increase the stock of gold, and stated that it had been brought about in great measure by enlarged issue of small notes.
1871 - -	23·7	14·4	5·3	1·4	27·7	15·9	94·4	68·7	
1872 - -	26·3	22·	5·8	3·2	31·7	25·2	107·1	88·5	
1873 - -	27·6	22·4	6·	5·	32·8	28·2	122·9	106·2	
1874 - -	40·6	24·4	13·2	6·	53·2	30·4	116·6	98·5	
1875 - -	47·	40·2	20·3	12·4	66·7	52·7	108·1	93·2	
1876 - -	61·8	40·6	25·6	19·8	87·3	66·9	104·7	95·	
1877 - -	62·3	48·2	34·7	25·5	91·3	82·8	109·	94·3	
1878 - -	48·1	40·1	42·4	34·4	87·3	78·7	101·9	88·1	
1879 - -	43·5	30·1	49·	42·2	90·1	78·8	93·1	84·	
1880 - -	33·1	21·5	51·3	48·5	84·1	70·5	99·3	88·3	
1881 - -	26·2	21·7	50·	46·6	75·9	70·	113·	95·9	
1882 - -	40·2	25·8	46·5	43·7	86·3	71·7	118·1	105·1	
1883 - -	40·6	37·9	43·7	40·1	83·3	78·6	123·9	111·	
1884 - -	42·5	37·8	41·4	39·6	83·7	77·4	126·5	112·6	
1885 - -	47·	39·7	44·2	41·	91·3	80·8	122·6	108·8	
1886 :									
January -	46·6	45·7	43·5	43·1	90·2	88·8	118·2	111·8	
February -	47·7	46·	43·7	43·3	91·4	89·3	118·9	112·8	
March -	50·6	47·7	44·1	43·7	94·8	91·5	115·8	111·4	
April -	52·1	50·8	44·8	44·2	96·8	95·	114·9	111·2	
May -	55·7	52·1	45·4	44·8	100·9	96·8	116·3	107·5	
June -	55·7	55·2	45·3	45·	101·	100·3	113·5	110·2	
July -	55·4	54·3	45·2	44·9	100·6	99·2	114·6	110·9	
August -	54·7	54·1	45·3	45·1	100·	99·2	114·1	107·1	
September -	54·9	54·5	45·5	45·3	100·4	99·8	109·7	106·3	
October -	54·9	53·8	45·6	45·4	100·4	99·4	110·1	106·4	
November -	53·8	52·3	45·7	45·5	99·4	98·	112·3	108·4	
December -	52·3	49·9	45·8	45·7	97·9	95·7	111·8	108·2	

* Mining and Scientific Press, March 17, 1882.

† Trans. Ann. Inst. Min. Eng. xiii. (1884-5), p. 370.

B.—GERMANY.

Berlin, 4th November 1886.

I BEG to answer your inquiries of the 26th ultimo as follows :—

1 and 2. Of the silver coin demonetized there has been sold on account of the empire 7,102,862 lbs. fine silver, and remains unsold 339,353 lbs. No sales have taken place since May 1879.

3 and 4. The extent and composition of the money in circulation and the momentary supply of bullion in Germany at the end of 1885 are taken about as follows :—

	£	Marks
Gold coinage of the empire (exclusive of 120 million marks in the War Treasury), about -	77,500,000	1,550,000,000
Bar gold and foreign coin in the Reichsbank -	9,700,000	194,000,000
German and Austrian thalers (highest estimate) -	22,500,000	450,000,000
Silver coins of the empire -	22,100,000	442,000,000
Nickel and copper coin -	2,000,000	40,000,000
Total -	133,800,000	2,876,000,000
Treasury notes of the Imperial Treasury -	6,900,000	138,000,000
Bank notes not covered -	18,050,000	361,000,000
Total -	158,750,000	3,175,000,000

Per head of the population (46,840,000) this amounts to M. 37·20 in gold coin, in old silver coin and token money M. 10, in credit notes M. 10·7; altogether means of circulation about M. 68 per head (not counting M. 300,000,000 balances with banks which are to be considered with the circulation of notes) against M. 58·50 in 1870.

The fifth question, as to the amount the average of inhabitants carry about with them, I have been quite unable to get answered, and I do not know by what method a somewhat reliable estimate can be arrived at.

C.—ITALY.

1^{re} Question.—A la fin du 1^{er} semestre 1886 le trésor de l'Etat possédait—

	Lire
En or entre propres fonds et fonds de l'emprunt -	215,522,105
En argent (écus) -	6,586,515
En petites pièces -	16,596,796
Total -	238,705,416

Outre cette somme il y avait en monnaies d'or et d'argent pas décimales lire 76,675·16, qu'on ne pouvait pas considérer comme faisant partie de la circulation, parce qu'elles étaient hors cours.

A la même date les six instituts d'émission du royaume possédaient dans leurs réserves—

	Lire
En or -	299,700,000
En écus d'argent -	51,800,000
En petites pièces d'argents -	12,960,000
Total -	364,460,000

aux quelles il faut ajouter 330,000l. en or pas décimales.

Ainsi la circulation du pays pouvait être déterminée par ces deux parties soit—

	Lire
Une -	238,705,416
L'autre -	364,460,000
Ensemble -	603,165,416

Il faut pourtant unir à ce total les montants métalliques chez les particuliers pour les quels on n'a pas de dates positives; excepté pour les petites pièces ecuses par l'état en 170,000,000 qui se trouvent sans aucun doute, pour la plus grande partie, en circulation dans le pays.

Or ces dernières on pourrait les calculer environ à 140,000,000 lire sans tenir compte des sommes qui sont chez les instituts d'émission et chez le trésor, calculant l'importation égale à l'exportation.

De telle manière le chiffre susdit serait de 743,165,416 lire.

Quant à l'or et aux écus qui peuvent circuler entre les particuliers, les instituts de crédit et les banques mineures, il nous manque, comme nous avons déjà dit, des dates sûres pour en fixer le montant.

La rélation parlementaire du député Simonelli, du 3 Juin 1885 pour le dessein de loi pour la prorogation du cours légal des billets des instituts d'émission, calculait à 60,000,000 de lres l'or qui existait alors chez les particuliers, et à 50,000,000 lire les écus d'argent; en tout encore 111,000,000 lire qui porteraient le total de la circulation a 854,165,416 lire.

Il faut pourtant tenir compte que ces derniers chiffres ayant été le résultat de simples appréciations indirectes et déductives donnèrent lieu à des vives critiques qui en diminuèrent assez l'importance.

Pourtant on peut les accepter sans trop croire d'être éloignés du vrai, surtout après un an et demi; dans laquelle période l'or et les écus ont eu le temps de s'enraciner davantage dans la circulation.

2^{me} Question.—A cette question répond la ci-jointe circulaire imprimée du 22 Mars 1886.

3^{me} Question.—Il nous manque tout élément pour répondre même à peu pris à la troisième question.

STATISTICS of GOLD shipped to ITALY in 1881-1883.

	Gold taken at Weight.	Coins which were legal Tender in the Kingdom.	Total.
Specie received -	Lire. 152,931,585·08	Lire. 491,063,425·00	Lire. 644,000,000·00
Bars -	Lire. 23,353,369·46	—	Lire. 23,353,369·46
Coins; not decimal:			
German R. Mark -	5,259,902·70	—	129,578,215·63
Russian ½ Imperials -	59,755,528·33	—	
English Sovereigns -	10,058,742·07	—	
Spanish 25 Pesetas -	998,123·17	—	
\$20 U.S. Gold -	53,505 824·35	—	338,063,415·00
Coins; decimal:			
100 francs -	—	93,300·0	
80 lire -	—	6,960·00	
50 francs -	—	14,200·00	
40 lire -	—	14,040·00	
20 francs -	—	328,035,660·00	
10 francs -	—	9,659,810·00	
5 francs -	—	244,445·00	
	Lire. 152,931,585·08	Lire. 338,063,415·00	Lire. 491,000,000·08

The above 491,000,000 were forwarded to Italy as follows :—

From—	Lire.
England -	104,985,219·14
Italy -	105,459,040·00
France -	68,744,182·73
America -	65,834,732·08
Germany -	65,539,335·30
Austria -	33,561,320·00
Russia -	25,224,699·17
Australia -	10,058,742·07
Switzerland -	200,000·00
Denmark -	5,519,980·00
Belgium -	2,259,880·00
Spain -	622,269·54
	Lire - 491,000,000·08

D.—SPAIN.

All the calculations which can be made as to the supply or stock of money have much of an arbitrary character, and even more so in Spain, where we do not know what quantity of money exists of the ancient coinages, how much is melted, how much is exported, or how much is re-imported. We have no other basis for an estimate than the ascertained coinings, and the opinions put forward by sundry authorities.

According to the well known "Diccionario de Canga," Arguelles (Vol. 2, page 331), in 1772 the Spanish money in circulation was estimated at 1,221,557,233 pesetas. But according to the report of the "Direccion General de Consumos, Casas de Moneda y Minas," published in 1862 (page 67), the quantity of gold and silver remelted in 1792 reached 317,057,235 pesetas, a figure which represented the whole, or at least a great part, of the specie current in Spain.

In 1814 the same "Canga" Arguelles (Diccionario, Vol. 1, page 440), says that without exaggeration the total of money circulating in Spain might be estimated at 1,618,369,210 pesetas. In 1830 Senor Borrego calculated our wealth in specie at 1,725 millions of pesetas. It is since that time that commerce has most developed, and population increased; and the perfection reached in documents representing credit being very recent, it may well be asserted that an approximate sum of specie is necessary.

Senor Surra y Rull, in 1870, calculated the specie circulation of Spain at 2,150 millions of pesetas; of which 1,600 millions were in gold, 50 millions in large silver, and 500 millions in small silver. (Enquete sur la circulation monétaire, Vol. 2, page 112). Senor Sansoma ("The Monetary Conference in 1881," page 33), estimates the specie in circulation at 1,200 millions of pesetas, of which 700 millions were in gold, and 500 millions in silver. The Director of the United States Mint calculated in 1881 the specie circulation of Spain to be 650 millions in gold, 200 millions in large silver, and 150 millions in small silver; total 1,000 millions of pesetas. M. Haupt ("Arbitrages et parités," 6th edition, page 8), estimates that at the end of 1883 the specie currency of Spain was composed of 760 millions in gold, 350 in large silver, and 160 in small silver; total 1,270 millions of pesetas. The same authority ("L'histoire monétaire de notre temps," page 417), is of opinion that the money in circulation in Spain in 1885 was composed of 470 millions in gold, 420 in large silver, and 180 millions in small silver; total 1,070 millions. Alph. Allard ("La crise, la baisse des prix la monnaie") estimates at 682 millions of pesetas the gold circulating in Spain, and 367 millions the silver; total 1,050 millions.

In view of such diverse opinion, let us now look at what is shown by the mintages which have been effected.

From 1824, until the law of 1868, 824 millions of pesetas were coined in gold, and 227 millions in silver; total 1,051 millions. Later on, although with the same die, 328 millions in gold were coined, which make, with the previous coinings, a total of 1,152 millions of pesetas in gold; but 660 millions of these having been presented for re-coining, there would remain a maximum in circulation of 492 millions in gold.

Under the law of 1868, 934 millions were coined, so that the maximum amount of gold in circulation will be 1,424 millions, without taking into account the gold of a prior date to 1824, of which there still remains some in circulation.

Senor Tutan, at the conference held in the "Atenes Barcelonés" in February 1886, estimates at 600 millions the gold which has been exported, leaving, therefore, 800 millions of pesetas in circulation, a figure probably below what would result from following the calculations of Senor Surra, and certainly above what may be deduced from those of the Director of the Mint of the United States, of Haupt, and of Allard, bearing in mind, in support of this inference, that our coinings from 1824 to 1868 hold a proportion of 80 per cent. of gold to 20 per cent. of silver.

With respect to the silver circulation, it is already shown that the amount coined from 1824 until the law of 1868 reached 227 millions of pesetas; and, there having been re-coined 28 millions, there remain 199 millions, which, added to the 610 millions coined subsequently, make up 809 millions, from which are to be deducted the amounts exported to the Colonies, Algiers, and other places, where our money circulates. The maximum figure of 600 millions fixed by the said authorities might well be accepted, making a total specie circulation of 1,400 millions of pesetas. This amount is smaller than that calculated by our authorities for 1830 and 1870; but the increased use of documents of credit, so much more general in these latter years, must be taken into account.

On the other hand, the proportion of 85 pesetas per head of the population, resulting from the total of 1,400 millions of pesetas in specie in circulation, appears more reasonable than the lower figure which would result from the estimates of other authorities, comparing the said sum of 85 pesetas with similar estimates for other nations, after duly taking into reasonable consideration their economic conditions.

In conclusion, we believe that the figures most approximating to exactness are those of 800 millions of pesetas in gold, and 600 millions in silver, as composing our specie circulation.

E.—SWITZERLAND.

1^{re} Question.—A combien estime-t-on le montant d'or et d'argent en espèces en circulation en Suisse?

Avant d'aborder les chiffres, il convient d'observer que la circulation fiduciaire tend à prendre de plus en plus d'importance en Suisse ainsi que le démontre le tableau suivant de l'émission des banques Suisses pendant les cinq dernières années.

1881	-	-	99.4 millions de francs	} d'après Mr. Otto Scherer.
1882	-	-	98.3	
1883	-	-	102.2	
1884	-	-	114.8	
1885	-	-	123.4	

La faveur de plus en plus marquée dont joint le billet de banque auprès de notre public tient à plusieurs causes—

1. La multiplicité des banques d'émission, grâce à laquelle les billets qui circulent dans chaque partie du pays sont en grande majorité ceux d'une banque locale que le public connaît parfaitement.
2. Les précautions presque exagérées prises par la loi, en ce qui concerne la couverture en espèces des billets émis par les banques.
3. Enfin la conviction générale que sous le régime actuel de multiplicité des banques il ne serait pas possible, en aucune circonstance d'établir le cours forcé.

Voici maintenant, d'après l'Inspecteur Fédéral des Banques d'Emission, Mr. Otto Scherer, une des personnes les mieux qualifiées en Suisse pour traiter cette question, quelle était à la fin de 1885 la circulation monétaire du pays—

—	Or.	Argent.
	Francs.	Francs.
Dans les banques -	48,000,000	18,000,000
En circulation -	22 à 32,000,000	22 à 32,000,000
Total -	70 @ 80 millions	40 @ 50 millions

sans tenir compte de la monnaie d'appoint.

Il est intéressant de comparer ces chiffres avec ceux de Mr. Ottomar Haupt (également pour la fin de l'année 1885)—

—	Or.	Argent.
	Francs.	Francs.
Dans les banques -	49,000,000	21,000,000
En circulation -	30,000,000	50,000,000
Total -	79,000,000	71,000,000

plus 18 millions en monnaie d'appoint.

On voit que Mr. Haupt fait au stock argent une plus large part que Mr. Scherer.

Mr. Ad. Soetbeer, qui est généralement connu comme l'un des premiers, sinon le premier, des statisticiens en cette matière, attribue au stock or de la Suisse une beaucoup plus grande importance absolue et relative, et considère comme minime les chiffres suivants, tout en faisant observer qu'il est fort difficile, surtout dans ce pays, d'arriver à

des données un peu certaines sur le chiffre de la circulation métallique—

	Or.	Argent.
	Francs.	Francs.
Dans les banques -	47,000,000	18,000,000
En circulation	53,000,000	22,000,000
Total	100,000,000	40,000,000

plus 20 millions en monnaie d'appoint (argent). Les chiffres de Mr. Soetbeer se rapportent au 30 Juin 1885.

Malgré les divergences qui existent entre les deux premières statistiques et celle de Mr. Soetbeer, cette dernière a bien son importance, vu la compétence et la grande autorité de son auteur, et le soin qu'il apporte au contrôle de tous les chiffres qu'il avance.

2^e Question.—Quelles sont les dénominations des différentes pièces en or et en argent qui ont cours en Suisse ?

La Suisse fait partie de l'Union Latine et les pièces d'or et d'argent qui y ont cours légal sont par conséquent les mêmes qu'en France, en Italie, en Belgique et en Grèce. Elles sont fixées par la Convention monétaire du 6 Novembre 1885 de la manière suivante—

Pièces d'or.—De f. 100, f. 50, f. 40, f. 20, f. 10, f. 5, frappées par l'un quelconque des États de l'Union.

Pièces d'argent.—De f. 5

Pièces d'argent (monnaie d'appoint).—De f. 2, f. 1, f. 0.50, f. 0.20, frappées par l'un quelconque des États de l'Union — également.

Toutes ces pièces ont cours en Suisse, bien que la Confédération n'ait frappé que les pièces suivantes—

Or.—Pièces de f. 20 (pour un montant très-restreint).

Argent.—Pièces de f. 5.

Argent (monnaie d'appoint).—Pièces de f. 2, f. 1, et f. 0.50.

3^e Question.—Combien les gens ont-ils l'habitude de porter sur eux ; en prenant une moyenne de dix personnes appartenant à des classes différentes ?

Si l'on tient compte des différences dérivant du sexe, de l'âge (doit-on comprendre les enfants ?), de la fortune, de l'occupation (et des besoins d'argent journaliers qu'elle peut entraîner), on comprendra qu'il ne soit possible de répondre à cette question d'une manière pratique. On arriverait tout au plus à une moyenne purement théorique, qui n'aurait aucune ombre d'exactitude et serait donc sans valeur.

Ce calcul rencontrerait en outre en Suisse des éléments spéciaux d'inexactitude—

1. Dans la diversité des races dont se compose la population, et partant, de leurs habitudes.

2. Dans le grand nombre d'étrangers qui parcourent le pays pendant une partie de l'année et transportent dans leurs poches des sommes plus considérables comme touristes que s'ils étaient habitants réguliers du pays. Cet élément important, qui échappe au contrôle, ne pourrait être laissé de côté dans l'établissement d'une statistique de cette nature.

Nous croyons cependant que dans ce domaine, le rôle du numéraire tend chaque jour à diminuer, les personnes qui ont l'habitude de porter sur elles une certaine somme préférant de plus en plus l'emploi des billets de banque

dont les petites coupures (de f. 50 et f. 100) sont très-pratiques pour les petits paiements.

Genève le 3 Novembre 1886.

F.—BELGIUM.

Bruxelles, le 5 Novembre 1886.

VEUILLEZ m'excuser si je réponds seulement aujourd'hui aux questions que vous m'avez adressées dans votre lettre du 27 Octobre proximo, mais elles étaient d'une nature telle que j'ai dû consulter diverses personnes pour arriver à vous fournir, non pas la solution complète des différents points qui vous intéressent, mais quelques renseignements ayant du moins une certaine valeur.

J'ai été ainsi amené à me mettre en rapport avec le Directeur de notre Monnaie, avec l'Administration de notre Banque Nationale, le grand réservoir de notre circulation monétaire et avec des économistes de mérite très compétents dans les questions de l'espèce dont vous m'entretenez.

A la 1^{re} de vos questions :

A combien estime-t-on le montant d'or et d'argent, en espèces, en circulation en Belgique, on me répond.

Des estimations diverses ont été faites à ce sujet. D'après l'étude faite en 1878 par M. E. Pirmez, Ministre d'Etat, il circulerait en Belgique pour 125 millions de francs en pièces de f. 5. et pour 30 millions en monnaies divisionnaires d'argent.

Toutefois il faut remarquer que cette évaluation repose sur la supposition d'une circulation proportionnelle au nombre d'habitants en France et en Belgique appliquée à la quantité de pièces de cinq francs existantes dans l'Union. Cette quantité n'est pas absolument certaine et dans cette étude, elle a été fixée trop bas : la somme de 125 millions pour les pièces circulant en Belgique semble inférieure de beaucoup à la réalité.

On pourrait admettre plutôt qu'elle est de 150 à 200 millions.

De plus, en prenant pour base d'appréciation les paiements faits à la Banque Nationale on est conduit à croire que la quantité des monnaies d'or est égale à la quantité de monnaies d'argent.

Voici les indications que demande votre 2^e question disant :

Quelles sont les dénominations des différentes pièces en or et en argent qui ont cours en Belgique ?

Pièces d'argent :

$\frac{1}{2}$ franc.
1 franc.
2 francs.
5 francs.

En monnaies d'or il n'y a en circulation que des pièces de f. 20, à l'effigie des souverains Belges.

Vous avez que les monnaies d'or et d'argent des autres pays faisant partie de l'union latine ont aussi cours en Belgique.

Quant à la 3^e question :

Combien pensez-vous que les gens ont l'habitude de porter sur eux en or et en argent, en prenant une moyenne de 10 personnes appartenant à des classes différentes ?

Il m'a été absolument impossible d'obtenir, nulle part, une réponse même par approximation. Aucune statistique ne fournit les éléments nécessaires pour donner des chiffres à cet égard et les évaluations que l'on risquerait seraient du domaine de la pure fantaisie.

En regrettant de ne pouvoir vous donner des renseignements aussi complets que je l'aurais désiré, je vous présente, Messieurs, l'assurance de mes sentiments les plus distingués et bien dévoués.

APPENDIX VIII.

PAPERS PUT IN BY MR. HENRY WATERFIELD.

A.—NOTE and TABLES with reference to Paragraph 4 (1, India) of the Treasury Minute of September 6, 1886.

The Royal Commission on Gold and Silver is instructed to inquire what has been the bearing of the changes in the value of the precious metals upon the remittances of the Government of India:—

- (1.) For payments on old or fixed contracts;
- (2.) For payments on new or current contracts.

An endeavour has accordingly been made to divide the net disbursements in England, for which remittances are made by the Government of India, in the manner indicated; and, in so doing, there have been placed in Class I. payments of which the sterling amount does not fluctuate with the rate of exchange, and which are made under old contracts; and in Class II., payments which fluctuate in amount according to the rate of exchange, or are made in consequence of recent arrangements, or are susceptible of modification.

The year 1874–75 has been selected as the starting point, that being the last in which the rate of exchange per rupee was above 1s. 10d.

The following are the heads under which the disbursements may be classed on the principles described above:—

1. *Interest on Debt.*—Up to the year 1884 it was the practice to raise debt in India rather than in England, whenever the latter course could be possibly avoided. The only material addition to the sterling debt between 1874 and 1884 was caused by the famines of 1874 and 1877, and it in no way differed from the debt raised through the necessities of the administration in previous years, as at the time of the Mutiny; therefore, the charge for interest on debt raised up to 1884 is put into the first class. In 1885–86, owing in a great measure to the Report of the Select Committee of the House of Commons on Railways in India, it was determined to raise in London the annual loan for public works; and, as this was the result of the policy of borrowing for that purpose in sterling rather than in rupees, the interest on this loan is placed in the second class.

2. *Stores.*—The stores being annually purchased, the quantity to be obtained is a matter of current administration, and, moreover, it would be possible, if it were thought desirable, to stipulate that payment should be made in rupees. They are, therefore, placed in the second class.

3. *Home Charges for service of British Forces in India.*—These consist mainly of the payments to the Treasury on account of the recruiting, dépôt, and superannuation charges defrayed by the War Office in connexion with the British forces in India, and are in repayment of charges incurred in sterling. They, therefore, fall into the first class.

4. *Passage of Troops to and from India.*—Nearly the whole of this service is undertaken by the Transport Department of the Admiralty, and can only be effected by sterling payments. It thus belongs to the first class.

5. *Furlough Allowances of Indian Officers.* 6. *Pensions and Annuities of Retired Indian Officers.* 7. *Miscellaneous Pensions.* 8. *Indian Provident Funds.*—Most of these payments are in sterling, in accordance with the conditions under which the officers entered the service many years ago, and therefore fall into the first class. Those which have been granted in rupees, and the privilege of receiving which in England is conceded only on the condition that payment is accepted at the rate of exchange annually fixed, are placed in the second class.

9. *Remittance Transactions.*—The Secretary of State in Council makes various remittances to and from India, on behalf of the British Government and of the persons employed in the public service. A rate for the purpose is annually fixed according to the exchange of the day, so that this head belongs to the second class.

10. *Home Administration.*—The salaries and incidental expenses of the India Office are to a great extent fixed by agreement made before 1874; and, even in the case of persons appointed subsequently, forming as they do part of the English Civil Service, the salaries must be paid in sterling. They therefore fall under the first class.

11. *Miscellaneous.*—These are various payments not falling under any of the foregoing heads, such as payments to the British Government on account of postal and diplomatic services, which are necessarily made in sterling, and these come into the first class.

12. *Railway Companies' Transactions.*—Payments of the interest guaranteed to the old companies, and of the annuities, or interest on stock granted in lieu of annuity, to the shareholders of undertakings purchased by the Government, and also the receipts and withdrawals of capital by the old companies, belong to the first class. Payments of interest, and receipts, and withdrawal of capital, in connexion with companies formed since 1880–81, are placed in the second class. Stores for the East Indian and Rajputana-Malwa Railways, purchased under the agreements made recently with the companies working those systems, are also placed in the second class.

13. *Grants-in-aid by the British Government.*—On account of the Afghan and Egyptian expeditions. Credit is given in the first class for these sums, which were voted by Parliament in sterling.

There have thus been obtained, in respect of each of the two classes, the total net sterling payments made in each year from 1874–75 to 1885–86, and, by deducting from the total of each year, subsequent to 1874–75, the total of that year, the excess of net payments in sterling in each year over those of 1874–75 is obtained. The payments in each year being converted into rupees at the average rate obtained for bills and telegraphic transfers in those years respectively, and the number of rupees required in 1874–75 being deducted from the number in each subsequent year, the excess remittance in rupees, requisite to provide for gold payments, over that in 1874–75 is obtained. This excess is then divided into two portions; by deducting from the requisite rupee remittance in each year the number of rupees that would have been needed for that year if the rate of exchange in 1874–75 had remained unaltered, the portion of the excess which has been caused by the fall in exchange is obtained; and by deducting from the number of rupees needed in each year if the rate for 1874–75 had remained unaltered the rupee remittance needed in 1874–75, the portion of the excess which has been caused by an increase in the sterling payments is obtained.

This method has been applied in Table I. to the payments made on old or fixed contracts, and in Table II. to those made on new or current contracts.

In Table III. a comparison is drawn between the years 1874–75 and 1885–86, in respect of the several descriptions of payments placed under the two classes respectively. By deducting the rupee remittance required in 1874–75 for the payments in gold in that year under the several heads (column 3), from the number of rupees needed for the remittance in 1885–86 of an equivalent gold payment (column 4), the excess is shown which is caused by the fall in exchange if the sterling payments had not been increased (column 5). By converting the excess of sterling payments in 1885–86 over 1874–75 (column 7) into rupees at the rate of exchange of 1874–75 (column 8) and of 1885–86 (column 9) respectively, and deducting the former from the latter, there is obtained the further excess caused by the fall in exchange operating on the increase in the sterling payments (column 10). The addition of these two results gives the total excess due to the fall in exchange (column 11), and if to this last result be added the equivalent in rupees, at the rate of 1874–75, of the excess of sterling payments in 1885–86 (column 8), there is obtained the total number of rupees needed in 1885–86 (column 12)

to defray the sterling payments of that year under the several heads, in excess of the number needed to defray the sterling payments of 1874-75 under the same heads.

The following figures comprise, in respect of the years 1874-75 and 1885-86, the chief points shown in the accompanying tables :—

	Payments under			Payments under	
	Old or fixed Contracts.	New or current Contracts.		Old or fixed Contracts.	New or current Contracts.
Net gold payments in 1874-75 - - £	11,704,953	3,339,968	Equivalent in rupees at rate of 1874-75 - Rs.	- 41,43,307	- 8,95,53,286
Rupees needed for the remittance in 1874-75 - - Rs.	12,67,88,727	3,61,78,726	" " 1885-86 - Rs.	- 60,35,233	- 4,80,14,977
Rupees needed for the equivalent sum in 1885-86 - - Rs.	15,38,93,374	4,39,12,943	Excess caused by fall in exchange on increase in net gold payments in 1885-86 over 1874-75 - - Rs.	- 8,86,886	- 84,56,691
Excess caused by fall in exchange on the net amount of gold payments in 1874-75 Rs.	2,71,04,647	77,34,217	Total excess caused by fall in exchange - Rs.	2,62,17,811	- 7,22,474
Net gold payments in 1885-86 - - £	11,321,979	- 311,996	Total excess whether from increase of gold payments or from fall in exchange - Rs.	2,20,69,414	- 4,02,80,760
Excess of net gold payments in 1885-86 over 1874-75 - - £	- 382,974	- 3,651,964			

The last line shows a net reduction of Rs. 1,82,11,346 in the rupee remittance needed to defray the net sterling payments in 1885-86 as compared with those of 1874-75. This is due to the net receipt on capital account of no less than 4,643,070*l.* in 1885-86 from railway companies with which recent contracts had been made, and of 508,467*l.*

from the old companies, whereas in 1874-75 the old companies withdrew 781,648*l.* from the Treasury of the Secretary of State. This reduction by 5,933,185*l.* in the net gold payments, as compared with those of 1874-75, was equivalent to a saving of Rs. 7,80,07,819 in the remittance in 1885-86.

(Signed) HENRY WATERFIELD.

November 22, 1886.

TABLE I.

	1874-75.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.	1884-85.	1885-86.
PAYMENTS ON OLD OR FIXED CONTRACTS.												
Interest on debt -	£ 2,178,136	£ 2,158,340	£ 2,269,802	£ 2,400,881	£ 2,590,587	£ 2,586,929	£ 2,539,398	£ 2,509,719	£ 2,478,621	£ 2,440,001	£ 2,422,135	£ 2,373,405
Home charges for service of British forces in India	820,650	804,734	918,378	1,289,933	1,304,700	1,386,922	1,406,746	1,344,235	1,385,572	1,412,563	1,442,345	740,585
Passage of troops to and from India	292,860	260,734	317,152	223,946	325,513	320,651	302,317	309,397	282,192	385,504	304,949	295,492
Pensions and furlough allowances at rates fixed in sterling (approximately)	2,039,402	2,665,630	2,966,100	3,003,881	3,006,091	3,130,466	3,156,209	3,210,431	3,185,172	3,225,031	3,182,037	3,225,317
Home administration	203,934	217,359	225,953	214,283	221,088	216,208	223,116	218,322	227,514	225,162	223,299	244,643
Miscellaneous	123,588	202,748	239,783	286,922	293,437	222,652	210,478	162,955	249,917	260,465	294,112	330,083
Guaranteed companies: Guaranteed interest	4,659,755	4,655,093	4,656,751	4,685,474	4,739,269	4,752,462	3,304,487	3,314,796	3,394,737	3,294,241	3,271,240	3,180,735
Annuities and interest in respect of lines purchased	—	—	—	—	—	34,397	1,337,167	1,592,298	1,564,896	1,514,711	1,573,908	1,690,186
Net withdrawals	781,648	1,210,175	1,553,238	312,956	925,545	457,556	798,372	932,529	46,354	384,045	1,377,134	— 602,467
Deduct grants in aid of Afghan and Egyptian Expeditions	11,704,953	12,181,735	13,207,657	13,508,179	13,401,225	13,108,243	13,021,432	13,584,682	12,704,805	14,081,813	14,037,159	11,571,379
Net payments in sterling in each year	11,704,953	12,181,735	13,207,657	12,508,179	13,401,225	11,108,243	12,521,432	13,084,682	11,704,805	13,081,813	13,787,159	11,321,379
Net payments in sterling in 1874-75	11,704,953	11,704,953	11,704,953	11,704,953	11,704,953	11,704,953	11,704,953	11,704,953	11,704,953	11,704,953	11,704,953	11,704,953
Excess of net payments in sterling in each year over those in 1874-75	—	476,782	1,502,704	808,236	1,696,273	— 596,770	816,229	1,379,729	— 443	1,376,860	2,082,206	— 362,574
Average rate obtained for bills and transfers on India in each year	Rs. 1s. 10 ¹ / ₂ 156d.	Rs. 1s. 9 ¹ / ₂ 266d.	Rs. 1s. 8 ¹ / ₂ 508d.	Rs. 1s. 8 ¹ / ₂ 791d.	Rs. 1s. 7 ¹ / ₂ 794d.	Rs. 1s. 7 ¹ / ₂ 961d.	Rs. 1s. 7 ¹ / ₂ 956d.	Rs. 1s. 7 ¹ / ₂ 895d.	Rs. 1s. 7 ¹ / ₂ 525d.	Rs. 1s. 7 ¹ / ₂ 536d.	Rs. 1s. 7 ¹ / ₂ 308d.	Rs. 1s. 6 ¹ / ₂ 254d.
Rupees needed to provide for the net sterling payments of each year at the average rate of that year.	12,67,88,727	13,51,92,968	15,45,65,240	14,43,85,595	16,24,87,220	13,86,59,688	15,05,87,158	16,78,40,674	14,33,98,069	16,07,11,452	17,13,73,265	14,86,58,141
Rupees needed to provide for the net sterling payments of 1874-75 at the average rate of 1874-75.	12,67,88,727	13,67,88,727	13,67,88,727	12,67,88,727	12,67,88,727	12,67,88,727	12,67,88,727	12,67,88,727	12,67,88,727	12,67,88,727	12,67,88,727	12,67,88,727
Total excess	—	84,04,241	2,77,76,513	1,75,96,868	3,55,98,493	67,70,961	2,37,98,431	3,10,51,947	1,71,09,342	3,39,22,725	4,45,84,538	2,20,69,414
Excess caused by fall in the rate of exchange:—												
Rupees needed to provide for the net sterling payments of each year at the average rate of that year.	12,67,88,727	13,51,92,968	15,45,65,240	14,43,85,595	16,24,87,220	13,86,59,688	15,05,87,158	16,78,40,674	14,33,98,069	16,07,11,452	17,13,73,265	14,86,58,141
Rupees needed to provide for the net sterling payments of each year at the average rate of 1874-75.	12,67,88,727	13,19,53,257	14,50,66,104	13,54,89,317	14,51,63,843	12,03,25,129	13,56,33,416	14,17,34,031	13,67,87,124	14,17,02,954	14,93,45,302	12,26,40,330
Excess caused by increase in sterling payments:—												
Rupees needed to provide for the net sterling payments of each year at the average rate of 1874-75.	12,67,88,727	13,19,53,257	14,30,66,104	13,54,89,317	14,51,63,843	12,03,25,129	13,56,33,416	14,17,34,031	13,67,87,124	14,17,02,954	14,93,45,302	12,26,40,330
Rupees needed to provide for the net sterling payments of 1874-75 at the average rate of 1874-75.	12,67,88,727	12,67,88,727	12,67,88,727	12,67,88,727	12,67,88,727	12,67,88,727	12,67,88,727	12,67,88,727	12,67,88,727	12,67,88,727	12,67,88,727	12,67,88,727
Total excess	—	51,64,530	1,62,77,377	87,00,590	1,88,74,116	— 64,65,598	88,44,689	1,49,45,304	— 1,603	1,40,14,227	2,25,54,575	— 41,43,397
	—	84,04,241	2,77,76,513	1,75,96,868	3,55,98,493	67,70,961	2,37,98,431	3,10,51,947	1,71,09,342	3,39,22,725	4,45,84,538	2,20,69,414

TABLE II.

	1874-75.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.	1884-85.	1885-86.
PAYMENTS ON NEW OR CURRENT CONTRACTS.												
Interest on loan raised in 1835-86	£	£	£	£	£	£	£	£	£	£	£	£
Stores for India	2,766,389	2,504,927	2,415,517	2,768,486	1,892,217	2,160,379	2,511,299	1,918,418	1,669,218	1,904,469	2,079,174	52,500
Pensions and furlough allowances at rates fixed in Indian currency (approximately).	187,065	209,227	215,314	223,550	223,353	215,560	245,267	244,212	235,648	256,331	244,159	243,949
Remittance transactions	368,514	572,244	779,411	610,691	276,502	878,998	342,285	502,475	407,988	373,871	400,806	-6,444
Railway companies under recent contracts :—Interest	—	—	—	—	—	—	—	2,012	9,991	25,156	35,897	195,881
Stores, &c. for East Indian and Rajputana-Malwa railways	—	—	—	—	—	27,323	522,393	475,664	453,901	400,082	403,123	807,770
Deduct net receipts from railway companies under recent contracts	3,339,968	3,339,398	3,410,242	3,602,727	2,392,072	2,772,188	3,024,744	3,142,781	2,776,746	2,960,409	3,163,165	4,331,074
Net payments in sterling in each year	3,339,968	3,336,398	3,410,242	3,602,727	2,392,072	2,772,188	3,024,744	3,062,781	1,049,698	2,985,134	1,735,736	-341,996
Net payments in sterling in 1874-75	3,339,968	3,339,968	3,339,968	3,339,968	3,339,968	3,339,968	3,339,968	3,339,968	3,339,968	3,339,968	3,339,968	3,339,968
Excess of net payments in sterling in each year over those in 1874-75	—	-53,570	70,274	262,759	-947,896	-567,780	284,776	-777,187	-2,297,270	-354,834	-1,604,233	-3,661,964
Average rate obtained for bills and transfers on India in each year	1s. 10 ¹ / ₁₆ d.	1s. 9 ¹ / ₃₂ d.	1s. 8 ¹ / ₁₆ d.	1s. 8 ¹ / ₁₆ d.	1s. 7 ¹ / ₁₆ d.	1s. 7 ¹ / ₁₆ d.	1s. 7 ¹ / ₁₆ d.	1s. 7 ¹ / ₁₆ d.	1s. 7 ¹ / ₁₆ d.	1s. 7 ¹ / ₁₆ d.	1s. 7 ¹ / ₁₆ d.	1s. 6 ¹ / ₁₆ d.
Rupees needed to provide for the net sterling payments of each year at the average rate of that year.	Rs. 3,61,78,726	Rs. 3,64,79,465	Rs. 3,60,09,037	Rs. 4,15,87,339	Rs. 2,90,03,403	Rs. 3,33,31,335	Rs. 4,35,92,276	Rs. 3,69,46,364	Rs. 1,28,15,857	Rs. 3,66,72,386	Rs. 2,15,75,057	Rs. -41,02,034
Rupees needed to provide for the net sterling payments of 1874-75 at the average rate of 1874-75.	3,61,78,726	3,61,78,726	3,61,78,726	3,61,78,726	3,61,78,726	3,61,78,726	3,61,78,726	3,61,78,726	3,61,78,726	3,61,78,726	3,61,78,726	3,61,78,726
Total excess	—	2,93,739	37,30,311	54,03,513	-74,75,353	-23,47,391	74,13,550	7,67,638	-2,33,59,869	4,93,980	-1,46,03,669	4,09,30,760
Excess caused by fall in the rate of exchange :—												
Rupees needed to provide for the net sterling payments of each year at the average rate of that year.	3,61,78,726	3,64,79,465	3,60,09,037	4,15,87,339	2,90,03,403	3,33,31,335	4,35,92,276	3,69,46,364	1,28,15,857	3,66,72,386	2,15,75,057	-41,02,034
Rupees needed to provide for the net sterling payments of each year at the average rate of 1874-75.	3,61,78,726	3,61,78,726	3,61,78,726	3,61,78,726	3,61,78,726	3,61,78,726	3,61,78,726	3,61,78,726	3,61,78,726	3,61,78,726	3,61,78,726	3,61,78,726
Total excess	—	8,74,012	29,69,098	25,62,392	80,92,341	33,02,855	48,28,540	87,70,143	15,24,292	43,37,542	27,73,454	7,32,474
Excess caused by increase in sterling payments :—												
Rupees needed to provide for the net sterling payments of each year at the average rate of 1874-75.	3,61,78,726	3,61,78,726	3,61,78,726	3,61,78,726	3,61,78,726	3,61,78,726	3,61,78,726	3,61,78,726	3,61,78,726	3,61,78,726	3,61,78,726	3,61,78,726
Rupees needed to provide for the net sterling payments of 1874-75 at the average rate of 1874-75.	—	-5,80,278	7,61,213	23,46,321	-1,02,67,664	-61,50,866	30,84,710	-30,02,505	-2,43,84,161	-23,45,333	-1,73,77,153	-3,05,68,966
Total excess	—	2,08,739	37,30,311	54,03,513	-74,75,353	-23,47,391	74,13,550	7,67,638	-2,33,59,869	4,93,980	-1,46,03,669	4,09,30,760

TABLE III.

	1874-75.			5.	1885-86.			10.1	11.	12.	
	2.	3.	4.		6.	7.	8.				9.
	Net Gold Payments.	Rupees needed in 1874-75 for Net Gold Payments.	Rupees needed in 1885-86 for the Net Amount of Gold Payments made in 1874-75.	Excess caused by Fall in Exchange on the Net Amount of Gold Payments made in 1874-75. (4-3.)	Net Gold Payments.	Increase in Net Gold Payments over 1874-75. (6-2.)	Additional Rupees that would at Rate of 1874-75 have been needed on account of the Increase in Net Gold Payments in 1885-86.	Additional Rupees actually needed in 1885-86 on account of the Increase in Net Gold Payments.	Excess caused by fall in Exchange on the Increase in Net Gold Payments. (9-8.)	Total Excess caused by Fall in Exchange over 1874-75. (5 + 10.)	Total Excess in 1885-86 over 1874-75 by Increase in Net Payments, and by Fall in Exchange. (8 + 11.)
	£	Rs.	Rs.	Rs.	£	£	Rs.	Rs.	Rs.	Rs.	Rs.
PAYMENTS ON OLD OR FIXED CONTRACTS.											
Interest on debt not raised for public works.	2,178,186	2,35,93,694	2,86,37,511	50,43,817	2,373,405	195,269	21,15,166	25,67,341	4,52,175	54,95,992	76,11,158
Home charges for service of British forces in India.	820,630	88,80,111	1,07,89,408	19,00,297	740,585	-80,045	-8,07,052	-70,58,409	-1,85,257	17,14,940	8,47,888
Passage of troops to and from India.	292,860	31,72,276	38,50,440	6,78,164	295,492	2,632	28,511	34,604	6,093	6,84,257	7,12,768
Pensions and furlough allowances at rates fixed in sterling (approximately).	2,639,402	2,85,90,166	3,47,02,102	61,11,946	3,225,317	585,915	63,46,665	77,03,443	13,56,778	74,68,724	1,38,15,389
Home administration.	208,984	22,68,185	27,47,003	4,83,818	244,643	35,709	3,86,802	4,69,492	82,690	5,66,508	9,53,310
Miscellaneous.	123,588	13,38,713	16,24,898	3,86,185	380,083	206,465	22,36,765	27,14,938	4,78,173	7,64,358	30,01,123
Guaranteed companies: Guaranteed interest.	4,659,755	5,04,74,736	6,12,65,126	1,07,90,390	3,180,735	211,166	22,87,361	27,76,350	4,88,989	1,12,79,379	1,35,66,740
Annuities and interest in respect of lines purchased.	—	—	—	—	1,690,166	-1,900,115	-1,50,74,600	-1,60,62,063	-20,87,463	-11,77,433	-1,51,52,033
Net withdrawals.	781,648	84,66,856	1,02,76,886	18,10,030	-503,467	-1,392,074	-14,40,322	-17,43,304	-3,07,922	2,67,96,725	2,53,56,843
Deduct grant in aid of Afghan Expedition.	11,704,953	12,67,88,727	15,38,93,374	2,71,04,647	11,571,379	250,000	27,08,015	32,86,929	5,78,914	5,78,914	32,86,929
	—	—	—	—	250,000	-392,074	-11,43,597	-50,85,233	-8,66,836	2,62,17,811	2,30,69,414
PAYMENTS ON NEW OR CURRENT CONTRACTS.											
Interest on loan raised in 1885-86.	—	—	—	—	52,500	52,500	5,68,683	6,90,256	1,21,673	1,21,673	6,90,256
Stores for India.	2,786,339	3,01,82,326	3,66,34,645	64,52,319	3,237,413	451,024	48,85,518	59,29,955	10,44,417	74,96,736	1,23,92,254
Pensions and furlough allowances at rates fixed in Indian currency (approximately).	187,065	20,26,299	24,69,477	4,33,178	243,949	56,884	6,16,171	7,47,895	1,31,724	5,64,902	11,81,073
Remittance transactions.	366,514	39,70,101	48,13,821	8,48,720	-6,444	-372,953	-40,89,903	-49,03,544	-8,63,641	-44,981	-40,54,864
Railway companies under recent contracts: Interest.	—	—	—	—	195,886	195,886	21,21,848	25,75,452	4,53,604	4,53,604	25,75,452
Stores, &c. for East Indian and Rajputana-Malwa railways.	—	—	—	—	607,770	607,770	65,83,400	79,90,785	14,07,385	14,07,385	79,90,785
Deduct net receipts from railway companies under recent contracts.	3,339,968	3,61,78,726	4,39,12,943	77,34,217	4,331,074	991,106	1,07,35,717	1,30,30,779	22,95,062	1,00,29,279	2,07,64,986
	—	—	—	—	4,643,070	4,643,070	5,02,94,003	6,10,45,756	1,07,51,753	1,07,51,753	6,10,45,756
	3,339,968	3,61,78,726	4,39,12,943	77,34,217	-844,996	-3,661,964	-3,95,58,286	-4,80,44,977	-84,56,694	-7,22,474	-4,02,80,760

B.—TABLE showing PROGRESS of EXTERNAL TRADE of INDIA.

(See Question 2500.)

Years.	Average Rate of Exchange per Rupee.	Imports into India.	Exports from India.
	<i>d.</i>		
1874-75	22·156	100	100
1875-76	21·626	107	103
1876-77	20·508	103	108
1877-78	20·791	114	116
1878-79	19·794	104	108
1879-80	19·961	114	119
1880-81	19·956	147	132
1881-82	19·895	136	145
1882-83	19·525	144	148
1883-84	19·536	153	156
1884-85	19·308	154	148
1885-86	18·254	154	149

D.—TABLE showing PER-CENTAGE of INDIAN TRADE to the WHOLE TRADE of the UNITED KINGDOM.

(See Question 2513.)

	Per cent.
1870 - - - - -	8·3
1871 - - - - -	8·1
1872 - - - - -	7·9
1873 - - - - -	7·7
1874 - - - - -	8·5
1875 - - - - -	8·5
1876 - - - - -	8·5
1877 - - - - -	8·9
1878 - - - - -	8·5
1879 - - - - -	7·8
1880 - - - - -	8·9
1881 - - - - -	9·2
1882 - - - - -	9·8
1883 - - - - -	9·9
1884 - - - - -	9·7

E.—TABLE showing PRICE of SILVER and the EXPORTS to INDIA from the UNITED KINGDOM.

(See Question 2518.)

C.—TABLE showing PROGRESS of the TRADE of the UNITED KINGDOM with INDIA.

(See Question 2504.)

Years.	Average Rate of Exchange per Rupee.	Imports into India.	Exports from India.
	<i>d.</i>		
1874-75	22·156	100	100
1875-76	21·626	96	101
1876-87	20·508	110	105
1877-78	20·791	132	110
1878-79	19·794	93	101
1879-80	19·961	108	99
1880-81	19·956	132	111
1881-82	19·895	127	125
1882-83	19·525	135	127
1883-84	19·536	145	132
1884-85	19·308	147	121

Years.	Gold Price of Silver in London.	Total Exports to India.	Exports of Cotton Manufactures.	
		Value.	Quantity.	Value.
1874	100	100	100	100
1875	98	101	99	98
1876	90	93	102	92
1877	94	105	106	95
1878	90	97	100	89
1879	88	89	103	87
1880	89	126	125	107
1881	89	121	132	110
1882	88	121	121	105
1883	87	132	126	105
1884	87	127	122	99
1885	83	122	121	92
1886	78	?	134	96

F.—TABLE showing MONTHLY EXPORTS of SILVER to INDIA in 1885 and 1886, with VALUE of BILLS sold by the SECRETARY OF STATE, and of EXPORTS of COTTON MANUFACTURES to INDIA from the UNITED KINGDOM.

(See Question 2574.)

Month.	1885.			1886.		
	Sale of Bills by Secretary of State.	Export of Silver to India.	Value of Exports of Cotton.	Sale of Bills by Secretary of State.	Export of Silver to India.	Value of Exports of Cotton Manufactures to India.
	Rs.	£	£	Rs.	£	£
January - - -	1,94,77,800	367,708	5,207,960	1,41,05,157	538,494	4,769,012
February - - -	2,05,10,900	620,400	4,680,110	2,07,96,000	794,400	4,544,604
March - - - -	2,24,05,999	853,882	4,722,690	2,31,33,400	293,100	5,161,373
April - - - -	1,28,52,200	639,750	4,253,281	1,27,66,000	209,417	4,389,450
May - - - - -	38,01,000	859,000	4,300,386	21,70,500	333,500	4,501,201
June - - - - -	37,94,300	449,800	4,436,503	56,23,450	476,864	4,967,138
July - - - - -	49,21,859	756,100	4,972,256	67,14,300	435,901	4,774,880
August - - - -	28,40,000	824,454	4,846,010	1,76,68,500	432,200	4,983,888
September - -	1,07,24,000	446,800	4,715,949	1,81,12,500	440,200	5,013,875
October - - - -	1,10,10,000	341,000	4,413,805	92,98,800	347,400	4,875,717
November - - -	1,38,97,000	505,599	4,058,204	1,06,01,000	218,151	4,810,993
December - - -	1,65,34,054	444,150	4,502,439	1,83,58,000	360,650	4,573,204
	14,27,69,112	7,108,643	55,111,593	15,93,47,607	4,880,277	57,365,335

G.—STATEMENT showing the DIFFERENCE between the SUMS in RUPEES, at the BUDGET RATE of EXCHANGE and at the RATE REALISED, needed to provide for the net Sterling Payments in England in each Year; and the Equivalent of that Difference in Sterling at the Rate realised.

(See Question 2650.)

Year.	Net Sterling Payments.			Rupees needed to provide for Net Sterling Payments.				Additional Rupees needed, owing to Exchange falling below the Rate assumed in the Budget; and their Equivalent in Sterling at Rate realised.	
	On Old or Fixed Contracts.	On New or Current Contracts.	Total.	At Budget Rate of Exchange.		At Rate realised.			
	£	£	£	Budget Rate.	Rs.	Rate realised.	Rs.	Rs.	£
				s. d.	(a)	s. d.	(b)	(b) - (a)	
1874-75	11,704,953	3,339,968	15,044,921	1 10·375	16,13,75,689	1 10·156	16,29,67,453	15,91,764	146,946
1875-76	12,181,735	3,286,398	15,468,133	1 9·875	16,97,07,516	1 9·626	17,16,65,433	19,57,917	176,425
1876-77	13,207,657	3,410,242	16,617,899	1 8·5	19,45,51,013	1 8·508	19,44,74,277	-76,736	-6,557
1877-78	12,508,179	3,602,727	16,110,906	1 9·23	18,21,29,884	1 8·791	18,59,72,934	38,43,050	332,920
1878-79	13,401,225	2,392,072	15,793,297	1 8·4	18,58,03,494	1 7·794	19,14,90,623	56,87,129	469,046
1879-80	11,108,243	2,772,188	13,880,431	1 7	17,53,31,760	1 7·961	16,68,91,023	-84,40,737	-702,023
1880-81	12,521,482	3,624,744	16,146,226	1 8	19,37,54,712	1 7·956	19,41,79,434	4,24,722	35,316
1881-82	13,084,682	3,062,781	16,147,463	1 8	19,37,69,556	1 7·895	19,47,87,038	10,17,482	84,345
1882-83	11,704,805	1,042,698	12,747,503	1 8	15,29,70,086	1 7·525	15,67,16,926	37,46,890	304,825
1883-84	13,081,813	2,985,134	16,066,947	1 7·5	19,77,47,040	1 7·536	19,73,84,138	-3,62,902	-29,540
1884-85	13,787,159	1,735,736	15,522,895	1 7·5	19,10,51,015	1 7·308	19,29,48,322	18,97,307	152,638
1885-86	11,321,979	-311,996	11,009,983	1 7	13,90,73,469	1 6·254	14,47,56,107	56,82,638	432,212

H.—TABLE showing the EXCESS by fall in EXCHANGE over that for the Year 1874-75, Year by Year, in Rupees, and in Sterling at average Rate of Exchange, on Old and New Contracts.

(See Question 2650.)

Year.	Average Rate obtained for Bills, &c.	On Old or Fixed Contracts.		On New or Current Contracts.		Total.	
		In Rupees.	In Sterling, at Average Rate of Exchange.	In Rupees.	In Sterling, at Average Rate of Exchange.	In Rupees.	In Sterling, at Average Rate of Exchange.
	s. d.	Rs.	£	Rs.	£	Rs.	£
1875-76	1 9·626	32,39,711	291,925	8,74,012	78,756	41,13,723	370,681
1876-77	1 8·508	1,14,99,136	982,601	29,69,098	253,710	1,44,68,234	1,236,311
1877-78	1 8·791	88,96,278	770,677	25,62,392	221,978	1,14,58,670	992,655
1878-79	1 7·794	1,73,24,377	1,428,828	30,92,341	255,041	2,04,16,718	1,683,869
1880-81	1 7·961	1,32,34,559	1,100,729	33,02,835	274,700	1,65,37,394	1,375,429
1880-81	1 7·956	1,49,53,742	1,243,404	43,28,840	359,943	1,92,82,582	1,603,347
1881-82	1 7·895	1,61,06,643	1,335,174	37,70,143	312,529	1,98,76,786	1,647,703
1882-83	1 7·525	1,71,10,945	1,392,047	15,24,292	124,007	1,86,35,237	1,516,054
1883-84	1 7·536	1,90,08,498	1,547,292	43,37,542	353,076	2,33,46,040	1,900,368
1884-85	1 7·308	2,20,29,963	1,772,311	27,73,464	223,125	2,48,03,427	1,995,436
1885-86	1 6·254	2,62,17,811	1,994,083	-7,22,474	-54,950	2,54,95,337	1,939,133

K.—STATEMENT showing the net EXPENDITURE of the GOVERNMENT of INDIA from 1874-75 to 1886-87, caused by Famine, Afghan War, Military Preparations on the North-West Frontier, and Operations in Burma.

(Question 2655.)

Years.	Famine Relief and Insurance.	Military Operations in Afghanistan.	Military Preparations on the North-West Frontier.	Military Operations in Burma.	Total.
(Tens of Rupees.)					
1874-75	2,248,683	—	—	—	2,248,683
1875-76	602,030	—	—	—	602,030
1876-77	2,145,517	—	—	—	2,145,517
1877-78	5,347,634	—	—	—	5,347,634
1878-79	313,547	692,391	—	—	1,005,938
1879-80	104,059	4,800,429	—	—	4,904,488
1880-81	34,840	7,539,091	—	—	7,573,931
1881-82	1,567,886	-1,487,682	—	—	80,204
1882-83	1,495,972	17,869	—	—	1,513,841
1883-84	1,522,813	—	—	—	1,522,813
1884-85	1,548,357	—	—	—	1,548,357
1885-86	1,500,000	—	2,268,000	390,000	4,158,000
(Revised Estimate)					
1886-87 (Budget)	1,500,000*	—	—	300,000	1,800,000

* Including 138,700 paid as interest to the Indian Midland Railway Company, and included in the Railway Revenue Account.

L.—NET REVENUE of the GOVERNMENT of INDIA, from 1875-76 to 1886-87.

(See Question 2719.)

Net Revenue.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.	1884-85.	Revised Estimate, 1885-86.	Budget, 1886-87.
Principal Heads of Revenue	47,885,000	46,622,000	47,538,000	51,835,000	53,075,000	52,703,000	53,655,000	50,954,000	52,038,000	51,080,000	51,988,000	53,925,000
Direct Demands on the Revenue	7,980,000	8,407,000	8,321,000	7,478,000	7,867,000	8,053,000	8,328,000	8,439,000	8,492,000	9,559,000	9,862,000	9,675,000
Net Revenue	40,005,000	38,215,000	39,237,000	44,358,000	45,208,000	44,650,000	45,427,000	42,465,000	43,546,000	41,521,000	42,126,000	44,250,000
Land Revenue	18,589,000	16,998,000	16,948,000	19,364,000	18,924,000	18,129,000	18,944,000	18,883,000	19,033,000	18,469,000	19,007,000	19,171,000
Opium	6,253,000	6,280,000	6,522,000	7,700,000	8,251,000	8,451,000	7,804,000	7,216,000	7,702,000	5,849,000	5,805,000	6,577,000
Salt	5,736,000	5,816,000	5,915,000	6,536,000	6,925,000	6,752,000	6,890,000	5,729,000	5,697,000	6,058,000	5,829,000	5,896,000
Stamps	2,725,000	2,738,000	2,886,000	2,986,000	3,072,000	3,137,000	3,264,000	3,246,000	3,397,000	3,466,000	3,508,000	3,541,000
Excise	2,407,000	2,433,000	2,358,000	2,531,000	2,746,000	3,040,000	3,330,000	3,515,000	3,745,000	3,908,000	4,031,000	4,029,000
Provincial Rates	1,895,000	1,878,000	2,190,000	2,575,000	2,834,000	2,730,000	2,843,000	2,630,000	2,824,000	2,740,000	2,836,000	2,863,000
Customs	2,537,000	2,282,000	2,416,000	2,127,000	2,080,000	2,341,000	2,166,000	1,141,000	1,048,000	893,000	1,016,000	1,040,000
Assessed Taxes	15,000	14,000	101,000	863,000	755,000	538,000	534,000	505,000	513,000	499,000	502,000	1,399,000
Forest	277,000	158,000	240,000	150,000	211,000	243,000	316,000	370,000	402,000	308,000	353,000	411,000
Registration	51,000	58,000	84,000	105,000	104,000	108,000	106,000	102,000	92,000	108,000	118,000	119,000
Tributes from Native States	726,000	695,000	675,000	704,000	703,000	742,000	707,000	690,000	720,000	699,000	694,000	712,000
Deduct Refunds and Assignments	41,211,000	39,845,000	40,335,000	45,641,000	46,605,000	46,211,000	46,894,000	43,977,000	45,173,000	42,997,000	43,699,000	45,758,000
Net Revenue	1,206,000	1,130,000	1,098,000	1,283,000	1,397,000	1,561,000	1,467,000	1,512,000	1,627,000	1,476,000	1,573,000	1,508,000
Average of 4 years.	40,005,000	38,215,000	39,237,000	44,358,000	45,208,000	44,650,000	45,427,000	42,465,000	43,546,000	41,521,000	42,126,000	44,250,000
Land Revenue	-	17,374,000	-	-	-	-	18,708,000	-	-	-	18,920,000	-
Opium	-	6,689,000	-	-	-	-	7,931,000	-	-	-	6,433,000	-
Salt	-	6,001,000	-	-	-	-	6,574,000	-	-	-	5,870,000	-
Stamps	-	2,834,000	-	-	-	-	3,180,000	-	-	-	3,478,000	-
Excise	-	2,432,000	-	-	-	-	3,158,000	-	-	-	3,938,000	-
Provincial Rates	-	2,135,000	-	-	-	-	2,759,000	-	-	-	2,816,000	-
Customs	-	2,340,000	-	-	-	-	1,932,000	-	-	-	999,000	-
Assessed Taxes	-	248,000	-	-	-	-	580,000	-	-	-	728,000	-
Forest	-	206,000	-	-	-	-	285,000	-	-	-	369,000	-
Registration	-	74,000	-	-	-	-	105,000	-	-	-	109,000	-
Tributes from Native States	-	700,000	-	-	-	-	710,000	-	-	-	706,000	-
Refunds and Assignments	-	41,633,000	-	-	-	-	45,922,000	-	-	-	44,406,000	-
Net Revenue	-	1,179,000	-	-	-	-	1,484,000	-	-	-	1,546,000	-
	-	40,454,000	-	-	-	-	44,438,000	-	-	-	42,860,000	-

M.—NET EXPENDITURE of the GOVERNMENT of INDIA, from 1875-76 to 1886-87.

(See Question 2719.)

Net Expenditure.	1875-76.	1876-77.	1877-78.	1878-79.	1879-80.	1880-81.	1881-82.	1882-83.	1883-84.	1884-85.	Revised Estimate, 1885-86.	Budget, 1886-87.
Principal Heads of Expenditure												
Receipts in Reduction	49,496,000	52,929,000	57,918,000	55,582,000	61,794,000	69,868,000	68,862,000	61,114,000	61,470,900	61,518,000	66,627,000	65,941,000
	11,080,000	12,030,000	14,414,000	13,358,000	15,359,000	21,587,000	22,030,000	19,324,000	19,803,000	19,611,000	21,610,000	21,873,000
Net Expenditure	38,416,000	40,799,000	43,499,000	42,224,000	46,435,000	48,281,000	41,832,000	41,790,000	41,667,000	41,907,000	45,017,000	44,068,000
Interest												
Post Office, Telegraph, and Mint	4,247,000	4,508,000	4,630,000	4,769,000	4,635,000	3,718,000	3,951,000	4,071,000	3,668,000	3,908,000	3,628,000	3,606,000
Civil Departments	337,000	160,000	—45,000	186,000	7,000	153,000	315,000	241,000	361,000	347,000	329,000	314,000
Miscellaneous Civil Charges	9,037,000	9,311,000	9,056,000	9,075,000	9,019,000	9,207,000	9,615,000	9,609,000	9,934,000	10,370,000	10,798,000	10,921,000
Famine Relief and Insurance	3,088,000	3,056,000	3,044,000	3,383,000	3,430,000	3,141,000	3,667,000	3,659,000	3,556,000	3,592,000	3,466,000	4,086,000
Construction of Railways (charged against Revenue in addition to that under Famine Insurance)	602,000	2,146,000	5,348,000	313,000	104,000	85,000	1,568,000	1,496,000	1,523,000	1,543,000	1,500,000	1,361,000
Railway Revenue Account	30,000	38,000	51,000	172,000	1,843,000	2,474,000	513,000	481,000	—176,000	264,000	631,000	109,000
Irrigation	1,559,000	1,146,000	150,000	2,076,000	1,571,000	1,044,000	286,000	1,306,000	305,000	1,051,000	782,000	1,722,000
Buildings and Roads	1,147,000	1,032,000	993,000	813,000	311,000	283,000	569,000	716,000	547,000	573,000	778,000	731,000
Army	4,160,000	4,006,000	3,494,000	3,767,000	3,419,000	3,781,000	4,451,000	4,779,000	5,259,000	4,394,000	4,159,000	4,769,000
	14,644,000	15,531,000	16,421,000	16,954,000	21,488,000	24,147,000	15,377,000	16,635,000	17,155,000	16,149,000	18,832,000	17,424,000
Total Net Expenditure, Imperial and Provincial	38,851,000	40,924,000	43,131,000	41,508,000	45,822,000	47,983,000	40,312,000	42,993,000	42,132,000	42,196,000	44,903,000	45,043,000
Deduct portion defrayed from Provincial Balances, or add portion of Allotments unspent by Provincial Governments	—435,000	—125,000	+368,000	+716,000	+613,000	+298,000	+1,520,000	—1,203,000	—465,000	—289,000	+114,000	—975,000
Total Net Expenditure charged against Revenue	38,416,000	40,799,000	43,499,000	42,224,000	46,435,000	48,281,000	41,832,000	41,790,000	41,667,000	41,907,000	45,017,000	44,068,000
Average of 4 years.												
Interest												
Post Office, Telegraph, and Mint	—	4,536,000	—	—	—	—	4,634,000	—	—	—	3,703,000	—
Civil Departments	—	159,000	—	—	—	—	179,000	—	—	—	388,000	—
Miscellaneous Civil Charges	—	9,120,000	—	—	—	—	9,362,000	—	—	—	10,506,000	—
Famine Relief and Insurance	—	3,143,000	—	—	—	—	3,474,000	—	—	—	3,675,000	—
Construction of Railways (charged against Revenue in addition to that under Famine Insurance)	—	2,102,000	—	—	—	—	801,000	—	—	—	1,483,000	—
Railway Revenue Account	—	—	73,000	—	—	—	—	—	—	—	207,000	—
Irrigation	—	1,233,000	—	—	—	—	1,052,000	—	—	—	965,000	—
Buildings and Roads	—	993,000	—	—	—	—	470,000	—	—	—	657,000	—
Army	—	3,857,000	—	—	—	—	4,107,000	—	—	—	4,645,000	—
	—	15,887,000	—	—	—	—	19,410,000	—	—	—	17,390,000	—
Total Net Expenditure, Imperial and Provincial	—	41,103,000	—	—	—	—	44,277,000	—	—	—	43,569,000	—
Deduct portion defrayed from Provincial Balances, or add portion of Allotments unspent by Provincial Governments	—	—	—	—	—	—	+307,000	—	—	—	—404,000	—
Total Net Expenditure charged against Revenue	—	41,234,000	—	—	—	—	44,584,000	—	—	—	43,165,000	—

N.—PRICES OF INDIAN GOVERNMENT SECURITIES.

(See Question 2727.)

(From de Quetteville's and Thompson's Circulars, and the Investor's Manual.)

YEARS.	Rate of Exchange for Secretary of State's drafts on Calcutta.		Price of Rupee Paper.				Price of Sterling Stocks.					
			In Calcutta.		In London.		4 per cent.		3½ per cent.		3 per cent.	
	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.	Highest.	Lowest.
	d.	d.										
1873	22 ⁷ / ₈	21 ⁵ / ₈	105 ¹ / ₂	101 ³ / ₄	97 ³ / ₄	93 ¹ / ₂	106	101				
1874	23 ¹ / ₈	21 ³ / ₄	104 ⁷ / ₈	101 ¹ / ₄	98	94	104 ¹ / ₂	100 ¹ / ₂				
1875	22 ⁹ / ₁₆	21 ¹ / ₄	103 ¹ / ₂	101 ¹ / ₂	94 ¹ / ₂	90	106 ¹ / ₂	102 ¹ / ₂				
1876	22 ³ / ₈	18 ¹ / ₂	102 ¹ / ₂	98 ¹ / ₂	92	76	106 ¹ / ₄	101				
1877	22 ¹ / ₄	20 ⁹ / ₁₆	99 ¹ / ₈	91 ⁷ / ₈	91	80	106 ¹ / ₄	100 ¹ / ₂				
1878	21	18 ³ / ₄	97	93	83 ¹ / ₈	71 ³ / ₄	105	97				
1879	20 ⁵ / ₈	18 ⁵ / ₈	95 ¹ / ₂	91	80 ³ / ₄	70	105 ³ / ₄	99 ³ / ₄				
1880	20 ³ / ₈	19 ³ / ₄	100 ¹ / ₂	92 ⁵ / ₈	82 ¹ / ₄	77	106 ³ / ₄	101 ³ / ₄				
1881	20 ¹ / ₁₆	19 ¹ / ₂	106 ³ / ₄	99	87 ¹ / ₄	81	107	103 ¹ / ₄	104 ¹ / ₂	99 ¹ / ₂		
1882	20 ³ / ₁₆	19 ¹ / ₁₆	102 ¹ / ₄	98 ³ / ₄	85 ¹ / ₄	79 ³ / ₄	105 ¹ / ₂	102 ¹ / ₄	102 ¹ / ₄	99		
1883	19 ⁹ / ₁₆	19 ³ / ₁₆	102 ³ / ₈	97 ¹ / ₂	82 ⁹ / ₁₆	79 ³ / ₈	105 ¹ / ₂	101 ¹ / ₄	103 ¹ / ₂	101 ¹ / ₄		
1884	19 ³ / ₄	18 ¹ / ₁₆	101 ¹ / ₂	94 ³ / ₈	82 ¹ / ₂	77	105 ¹ / ₂	101	107 ¹ / ₄	101 ¹ / ₂	96 ¹ / ₄	91 ¹ / ₂
1885	19 ³ / ₁₆	17 ³ / ₁₆	100	91 ¹ / ₂	78 ⁵ / ₈	72 ¹ / ₂	103 ¹ / ₂	97 ¹ / ₂	103 ¹ / ₄	97	92	83
1886	18	16 ³ / ₁₆	98	97 ¹ / ₁₆	74	65	104	104 ¹ / ₄	102 ¹ / ₂	99	91 ¹ / ₄	86

O.—COMPARISON of the FINANCIAL POSITION of the GOVERNMENT of INDIA in 1880-81 with that in 1885-86 and 1886-87.

(See Question 2765.)

Sir John Strachey's book on the "Finances and Public Works of India" dealt with the financial position of the Government of India in 1880-81, for which he gave (at page 433) the following figures from the Revised Estimates :—

	Tens of Rupees.
Net Revenue	49,431,000
Net Expenditure, apart from War, Frontier Railways, and Famine Relief	44,335,000
Surplus, excluding these exceptional charges	5,096,000
The excluded charges were (in round figures) :	
War, including Frontier Railways	11,296,000
Famine Relief	47,000
	11,343,000
And from the Receipts was deducted a capital credit on account of the assets of Military Funds	27,000
	11,316,000
So that the final result was a deficit of	6,220,000

The actual accounts differed from the Revised Estimates, and the form of stating them has been altered since 1881. For a true comparison with the recent Estimates, the figures should be arranged in the following manner :—

	Accounts, 1880-81.	Revised Estimates, 1885-86.	Budget, 1886-87.
Net Revenue	44,644,000	42,126,000	44,250,000
Net Expenditure, apart from charges shown below	38,233,000	40,359,000	42,268,000
Surplus, apart from charges shown below	6,416,000	1,767,000	1,982,000

	Accounts, 1880-81.	Revised Estimates, 1885-86.	Budget, 1886-87.
EXCLUDED CHARGES.			
War or special military preparations	7,539,000	2,658,000*	300,000†
Construction of Railways, not provided from Provincial Revenues, or from borrowed money, or from the grant for Famine Insurance	2,473,000	500,000	—
Famine Relief and Insurance	35,000	1,500,000	1,500,000‡
	10,047,000	4,658,000	1,800,000
Final Result—Surplus	—	—	182,000
Deficit	3,631,000	2,891,000	—

* See paragraph 42 of the Financial Statement for 1886-87, where the cost of the War preparations in 1885-86 is stated at 2,057,100 in India, and 466,700 for Stores in England, to which must be added 143,900 for Exchange.

† See paragraph 26 of the Financial Statement, giving 300,000 as the Expenditure for the Army in Upper Burma.

‡ The sum of 1,500,000. includes 1,361,300 shown under Famine Relief and Insurance, and 138,700 paid as interest to the Indian Midland Railway Company and included in the Railway Revenue Accounts.

When the Government of India at the end of 1877 made arrangements to meet the recurring expenditure on account of famine, the intention was to provide a surplus of 2,000,000 over the ordinary charges, of which 1,500,000 was to be devoted to the relief of or insurance against famine, and 500,000 was to meet contingencies. In the accounts of 1880-81 there was, over the ordinary charges, a surplus of 6,416,000, of which 35,000 was required for the relief of famine, and the remainder was applied in diminution of the debt that had to be raised to meet the exceptional charges for War and Frontier Railways. In the Revised Estimates for 1885-86 there was, over the ordinary charges, a surplus of 1,767,000, instead of 2,000,000, to meet the charge for Famine Relief and Insurance and an allotment of 500,000 which in the Budget had been made from revenue for the construction of railways. In the Budget for 1886-87 an ordinary surplus of 1,982,000 was provided, of which 1,500,000 was allotted to Famine Relief and Insurance (including 138,700 charged in the Railway Revenue Account for interest payable to the Indian Midland Railway Company), and 300,000 was provided for the military operations in Burmah.

The following Table shows the heads under which has arisen the change in the financial position since 1880-81 :—

Net Revenue and Expenditure, excluding War, Construction of Railways, and Famine.	1885-86. Better +, or Worse —, than 1880-81.				1886-87. Better +, or Worse —, than 1880-81.			
	India.	England.	Exchange.	Total.	India.	England.	Exchange.	Total.
NET REVENUE.								
Land Revenue - - -	+ 879,300	—	—	+ 879,300	+ 1,042,300	—	—	+ 1,042,300
Opium - - - - -	- 2,640,700	- 4,600	- 1,500	- 2,646,800	- 1,872,200	- 1,500	- 500	- 1,874,200
Salt - - - - -	- 921,400	- 1,700	- 500	- 923,600	- 856,600	—	—	- 856,600
Stamps - - - - -	+ 397,500	- 16,900	- 8,900	+ 371,700	+ 435,600	- 20,300	- 10,900	+ 404,400
Excise - - - - -	+ 991,900	- 900	- 300	+ 990,700	+ 989,200	—	—	+ 989,200
Provincial Rates - - -	+ 105,700	—	—	+ 105,700	+ 132,600	—	—	+ 132,600
Customs - - - - -	- 1,324,500	—	—	- 1,324,500	- 1,300,900	—	—	- 1,300,900
Assessed Taxes - - -	- 35,200	—	—	- 35,200	+ 861,900	—	—	+ 861,900
Other Heads - - - -	+ 60,600	- 200	- 300	+ 60,100	+ 202,100	+ 100	- 300	+ 201,900
Total - - - - -	- 2,466,800	- 24,300	- 11,500	- 2,522,600	- 366,000	- 21,700	- 11,700	- 399,400
NET EXPENDITURE.								
Interest - - - - -	+ 694,900	- 276,600	- 328,200	+ 90,100	+ 991,700	- 449,800	- 430,200	+ 111,700
Telegraph - - - - -	- 61,700	- 178,900	- 62,900	- 303,500	- 123,200	- 76,900	- 33,300	- 233,400
Law and Justice - - -	- 219,500	- 900	- 400	- 220,800	- 329,800	- 1,700	- 700	- 332,200
Police - - - - -	- 235,400	—	—	- 235,400	- 410,800	—	—	- 410,800
Education - - - - -	- 224,300	—	—	- 224,300	- 293,900	+ 200	—	- 293,700
Political - - - - -	- 642,500	+ 53,900	+ 7,300	- 581,300	- 200,600	+ 59,000	+ 8,400	- 133,200
Superannuation - - -	+ 25,500	- 83,100	- 173,200	- 230,800	+ 137,100	- 204,000	- 239,000	- 305,900
Railway Revenue Account -	+ 1,408,300	- 479,500	- 667,200	+ 261,600	+ 827,900	- 575,200*	- 791,700*	- 539,000
Irrigation - - - - -	- 559,000	+ 54,300	+ 10,900	- 493,800	- 510,900	+ 52,800	+ 10,400	- 447,700
Buildings and Roads -	- 387,500	+ 14,500	- 3,800	- 376,800	- 999,700	+ 16,300	- 4,200	- 987,600
Army (ordinary) - - -	- 226,900	+ 845,400	- 185,200	+ 433,300	- 419,000	+ 320,800	- 418,100	- 516,300
Other Heads - - - - -	+ 35,800	- 150,100	- 130,000	- 244,300	+ 475,900	- 244,800	- 177,600	+ 55,500
Total - - - - -	- 392,300	- 201,000	- 1,532,700	- 2,126,000	- 855,300	- 1,103,300	- 2,076,000	- 4,034,600
GRAND TOTAL - - - -	- 2,879,100	- 225,300	- 1,544,200	- 4,648,600	- 1,221,300	- 1,125,000	- 2,087,700	- 4,434,000

* Excluding Indian Midland Railway Interest, 104,000, and Exchange thereon, 34,700.

These details may be summarised thus in groups :—

Better +, or worse —, than 1880-81.

	1885-86.	1886-87.
(1.) Reduction of the duties on salt and customs (in 1882) - - -	- 2,248,100	- 2,157,500
(2.) Improvement of revenue over expenditure, excluding salt, customs, opium, income tax, army, famine, construction of railways, and fall in exchange - - - - -	+ 1,544,500	+ 1,339,600
(3.) Ordinary army charges, and imposition of income tax in 1886 - - -	+ 433,300	+ 380,800
(4.) Diminution of opium revenue - - -	- 2,646,800	- 1,874,200
(5.) Increased charge for exchange, due to the change in the relative value of gold and silver - - -	- 1,781,500	- 2,122,700
	- 4,648,600	- 4,434,000

The following remarks will explain these changes more fully :—

(1.) As explained in Sir John Strachey's work, the Government of India had, by the adoption of a series of measures, carried on for many years, of which the most important were the construction of the Rajputana Railway, the acquisition of the Sambhur Salt Lake, the negotiation of treaties with numerous Native States, and the temporary increase of the salt duty in Southern India, been enabled to abolish the inland customs line and greatly reduce the duty on salt throughout Bengal and Northern India, and in 1882 they were able to complete the reforms by a further reduction in Bengal, so as to equalise the rate

throughout India, and then reduce it everywhere from $2\frac{1}{2}$ to 2 rupees a maund.

For some years also measures had been taken to reduce the duty on imports of the coarser cotton manufactures, so as to remove all semblance of protection for the nascent industry in India, which was seen to be rapidly developing, and which it was most important to place on an sound footing, dependent on its natural advantages and not fostered by any artificial stimulus. In 1882 it became practicable to sweep away the last remains of the import duty on cotton manufactures, and with it the duties on all goods imported into India except liquors, arms, salt, and opium.

Besides these two great measures, the burden on the land was reduced in the North-West Provinces by the remission of the cess for the payment of the village officers, and in Oudh by the transfer of the cost of such officers from the landholders to the Government.

The following was the financial effect as estimated in the budget for 1882-83 :—

Surplus (after providing 1,500,000L. for famine relief and insurance)	£	3,171,000
Remission of duty on salt - - -	1,423,000	
„ import duties (net) - - -	1,147,000	
„ Patwari cess in North-West Provinces - - -	241,000	
Total remission of taxation - - -	2,811,000	
Increase of expenditure by payment of village officers in Oudh - - -	75,000	
		2,886,000
Surplus retained - - - - -		285,000

(2.) The increase since 1880-81 of the revenue from land, stamps, excise, provincial rates, assessed taxes (omitting the additional taxation in 1886), and minor heads, was :—

	In 1885-86.	And in 1886-87.
	2,372,300	2,735,000
The increase of expenditure, excluding Army, construction of railways, and famine, was	2,559,300	3,518,300
Showing a result worse by	187,000	783,100
But of the increased expenditure the fall in exchange accounted for	1,731,500	2,122,700
So that, apart from the fall in exchange, there would have been an improvement of	1,544,500	1,339,600

(The comparison is not quite accurate, as, on the one hand, the land revenue was exceptionally low in 1880-81, and, on the other hand, the net civil expenditure in Upper Burma is included in 1886-87.)

(3.) The permanent increase of the Army charges in India is shown at paragraph 37 of the Financial Statement as	1,126,900
Besides a sum deferred to future years, estimated (paragraph 36) at	656,900
	1,783,800

And, after adding the increased payments in England, with exchange, the total may be taken at about 2,000,000. This, however, is to a great extent met by the temporary saving effected through the alteration made in the system of payments to the Treasury for Non-Effective charges, by which, since the 1st of April 1884, India only pays the charge due to her during the year, instead of the capitalised value of such payments. The consequence is that, as compared with 1880-81, the ordinary Army charges were better by 433,300 in 1885-86, and worse by 516,300 in 1886-87, in which latter year the income tax was imposed to meet

this charge, the improvement of revenue thereby being estimated at 897,100, giving a net result better by 380,800.

(4.) The following are the figures connected with the opium revenue :

	Number of Chests sold in Bengal.	Revenue.	Charges.	Net Result.
1880-81	56,400	10,480,100	2,023,800	8,451,300
1885-86	50,994	8,914,700	3,110,200	5,804,500
1886-87	54,750	9,227,600	2,650,500	6,577,100

The reduction in the receipts is due partly to the necessity of diminishing the quantity offered for sale at Calcutta, owing to the amount in store having been seriously lessened in consequence of bad crops, and partly to much lower prices being realised at the sales. The increase of the expenditure arises from the fact that the two last crops were remarkably good.

(5.) Exchange on expenditure in England is worse than in 1880-81 :—

	In 1885-86.	In 1886-87.
By	1,544,200	2,087,700
But of this there is attributable to increase of sterling expenditure	45,700	249,000
Leaving due in England to fall in exchange	1,498,500	1,838,700
To which must be added the addition made to the British soldier's pay in India	233,000	284,000
Making a total of	1,731,500	2,122,700

India Office,
24th February 1887.

H. WATERFIELD.

The foregoing memorandum has been shown to Sir John Strachey, who has returned it with the letter annexed :—

My dear Waterfield,

I understand your question to be as follows. At pp. 356 and 374 of the book on the Finances of India, written in 1881 by my brother and myself, some statements were made regarding the possibility of largely increasing the public income in the event of any serious financial emergency. You were asked by the Commission whether you agreed with those statements, and your reply was to the effect that the whole position had changed since they were made, and that they were not applicable to the existing condition of things. You ask me if you are not right in believing that this is my own opinion also. The answer is easy. Yes, I think that your Memorandum shows clearly that the conclusion stated by you is perfectly correct.

Some of the expressions used in the first of the passages in question, at p. 356, are not very well chosen, but the general opinions of the authors of the book were given clearly enough at p. 374. Reading them with what goes before, they were to the effect that the then existing financial position was very prosperous, that the main sources of revenue were improving in productiveness, and that, although no necessity of the kind was probable, there would be little difficulty in still further increasing the revenue by 2,000,000 a year. It was suggested that the greater part of such an additional sum might be raised by an income tax. Further, it was said that if, "in consequence of some great financial catastrophe," a much larger further increase to the revenue should become necessary, it could be provided without injury to the country, but only by what had before been called "heroic remedies."

Obviously in making any such forecast of the future, the first essential fact to be considered was the existing financial position. It would clearly make all the difference in the world, when the anticipated emergency arrived, whether there was a large surplus revenue to start with, or a deficit to be made good before dealing with the emergency itself.

When this book was written, early in 1881, it was stated by the authors that there was an assured normal annual surplus of revenue over ordinary expenditure amounting to more than 4,000,000. I see from your memorandum that the actual surplus over ordinary charges in 1880-81 was 6,400,000. In considering what could be done to meet some serious emergency, it was assumed, first, that we had this surplus of at least 4,000,000 to draw upon; and, second, that an additional 2,000,000 might in case of necessity, be raised. Thus, it was supposed that some 6,000,000 a year would be forthcoming before any question of resorting to "heroic remedies," would arise.

The position is now totally different. Your memorandum shows how the changes have come about. Not only has the whole of the surplus of 4,000,000 disappeared, but the greater part of the additional taxation, which in 1881 was thought immediately practicable, has already been imposed in the shape of an income tax, and although this yields much less than had been anticipated by the authors of the book, it would now be in the highest degree unwise to alter it. Thus, whereas in 1881 we had the means of meeting a very serious emergency without having recourse to any extraordinary measures, we have at the present time, as far as I can see, no such means left. There only remain the "heroic remedies," and I certainly should not now contemplate the adoption of such remedies so calmly as was possible under the very different political conditions of 1881.

But I need say nothing on such questions, which the Commission will doubtless consider fall altogether outside the sphere of this present inquiry. I should be sorry myself to give any opinions regarding them, until I knew the views of the Government of India. They alone have the means of arriving at a sound judgment, if it should unfortunately happen that extraordinary measures become necessary, and on them primarily the responsibility must rest for deciding what those measures should be.

Your sincerely,

JOHN STRACHEY.

28th February 1887.

P.—COMPARATIVE STATISTICS of JUTE and COTTON MILLS, 1876-7—1884-5.

(See Question 2775.)

Years.	Number of Mills.	Number of Looms.	Number of Spindles.	Average Daily Number of Hands employed.	Number of Mills.	Number of Looms.	Number of Spindles.	Average Daily Number of Hands employed.
1876-77	47	9,139	1,110,112	—	18	3,049	22,610	—
1877-78	53	10,533	1,289,706	—	21	4,094	38,946	—
1878-79	58	12,983	1,436,464	—	21	4,645	65,882	—
1879-80	58	13,307	1,470,830	39,537	22	4,946	70,840	27,494
1880-81	58	13,283	1,471,730	47,955	21	5,065	69,978	35,235
1881-82	62	14,386	1,550,944	52,231	21	5,655	90,755	40,551
1882-83	62	15,116	1,654,108	53,634	20	5,633	95,737	42,797
1883-84	74	16,251	1,895,284	61,836	21	6,139	112,650	47,868
1884-85	81	16,455	2,037,055	61,596	22	6,926	131,740	51,902

Q.—JOINT STOCK COMPANIES registered and working in BRITISH INDIA, March 1885.

Companies.	No.	Nominal Capital.	Paid-up Capital.
I. Banking and Insurance Companies.	207	Rs. 5,06,37,328	Rs. 2,91,61,661
II. Trading Companies -	124	4,73,54,650	2,87,92,321
III. Mills and Presses -	152	10,80,67,330	8,98,21,282
IV. Planting Companies -	138	4,18,07,000	3,39,21,436
V. Mining and Quarrying Associations.	25	1,28,35,100	1,06,27,387
VI. Ice Manufacturing Companies.	14	27,22,500	18,03,362
VII. Sugar Manufacturing Companies.	4	23,95,000	18,51,825
VIII. Breweries -	3	12,00,000	11,00,000
IX. Miscellaneous Companies	29	1,18,58,000	92,79,171
	696	27,88,76,908	20,63,58,445

APPENDIX IX.

PAPERS PUT IN BY MR. ROBERT BARCLAY.

TABLE No. 1.

PROGRESS of INDIAN MILLS during the past 22 Years. See Question 2301.

Years ending 30th June		Average Price of Silver.	Number of Mills.	Number of Spindles.	Number of Looms.
1865	Bombay	$61\frac{1}{8}$	13	285,524	3,579
1866	do.	$61\frac{1}{8}$	18	309,911	3,455
1867	do.	$60\frac{9}{16}$	13	313,597	3,779
1868	do.	$60\frac{1}{2}$	13	318,184	3,844
1869	do.	$60\frac{7}{16}$	13	321,414	3,920
1870	do.	$60\frac{9}{16}$	14	343,460	4,441
1871	do.	$60\frac{1}{2}$	14	358,436	4,641
1872	do.	$60\frac{5}{16}$	15	367,036	4,653
1873	do.	$59\frac{1}{2}$	18	450,156	4,972
1874	do.	$58\frac{5}{16}$	19	524,530	6,103
1875	do.	$56\frac{7}{8}$	36	886,098	8,339
1876	do.	$52\frac{3}{4}$	39	963,983	8,681
1877	do.	$54\frac{1}{8}$	41	1,043,944	9,291
1878	do.	$52\frac{9}{16}$	42	1,104,846	11,544
1879	do.	$51\frac{1}{2}$	42	1,147,810	12,311
1880	do.	$52\frac{1}{4}$	42	1,154,184	12,396
1881	do.	$51\frac{1}{8}$	42	1,158,510	12,510
1882	do.	$51\frac{5}{8}$	49	1,237,536	13,046
1883	do.	$50\frac{9}{16}$	51	1,345,042	13,616
1884	do.	$50\frac{5}{8}$	60	1,524,499	14,299
1885	do.	$48\frac{5}{8}$	68	1,650,036	14,588
1886	do.	$45\frac{3}{8}$	70	1,698,797	14,635
1886	Bombay as above	-	70	1,698,797	14,635
	Berar	-	1	16,380	—
	Central Provinces	-	2	47,040	406
	Hyderabad (Nizam's Territory)	-	2	35,172	405
	Central India	-	1	26,036	464
	Bengal Presidency	-	6	227,916	—
	North-West Provinces and Oudh	-	3	80,352	856
	Madras Presidency	-	7	95,728	235
	Travancore	-	1	11,120	—
	Mysore	-	1	—	—
	Pondicherry	-	1	23,020	452
TOTAL INDIA IN 1886			95	2,261,561	17,455

TABLE No. 2.

EXPORTS of COTTON YARNS and GOODS from INDIA.

(From Indian Trade and Navigation Returns.)

YEAR.	YARNS shipped to CHINA, JAPAN, &c.		GOODS shipped to ADEN, EASTERN AFRICA, CHINA, &c.	
	Quantity.	Value.	Yards.	Value.
	Lbs.	£		£
1876-77	7,926,710	367,303	15,544,168	373,657
1877-78	15,600,201	682,059	17,545,464	372,304
1878-79	21,333,508	886,481	22,661,231	420,150
1879-80	25,862,474	1,169,234	25,800,501	444,309
1880-81	26,901,346	1,282,576	30,424,032	540,711
1881-82	30,786,304	1,368,836	29,911,017	556,409
1882-83	45,223,000	1,816,818	41,563,000	686,319
1883-84	49,876,606	1,926,162	55,613,763	861,935
1884-85	65,897,183	2,441,100	47,968,017	818,667
1885-86	78,238,471	2,755,042	51,558,151	813,007
Six months, 1st April to } 30th September 1886 - }	47,922,360	1,729,811	29,197,180	470,534

TABLE No. 3

COTTON EXPORTS from ENGLAND to Countries indicated under the following headings.

(From the English Board of Trade Returns.)

Year.	CHINA, HONG KONG, AND JAPAN.				OTHER COUNTRIES.			
	Yarns.		Goods.		Yarns.		Goods.	
	Quantities.	Values.	Quantities.	Values.	Quantities.	Values.	Quantities.	Values.
	Lbs.	£	Yards.	£	Lbs.	£	Yards.	£
1876	29,838,495	1,272,008	491,559,690	5,751,583	—	—	—	—
1881	47,479,200	1,898,089	587,177,400	6,773,730	—	—	—	—
1882	34,391,500	1,385,278	455,034,800	5,230,688	—	—	—	—
1883	33,499,800	1,295,039	415,956,400	4,631,978	11,642,600	621,425	173,128,700	2,260,484
1884	38,856,100	1,451,749	440,642,700	4,694,429	10,632,100	605,689	151,875,700	1,996,807
1885	33,061,100	1,239,012	569,339,400	5,786,566	9,424,400	512,685	147,289,100	1,859,099
1886	26,930,400	900,846	490,451,500	4,953,705	9,581,700	463,497	152,471,300	1,778,011

TABLE No. 4.

IMPORTS of COTTON GOODS from ENGLAND.

(From Indian Trade and Navigation Returns.)

	TWELVE MONTHS, 1st April to 31st March						SIX MONTHS, 1st April to 30th Sept. 1886.
	1880-81.	1881-82.	1882-83.	1883-84.	1884-85.	1885-86.	
Manufactured grey piece goods imported into India from the United Kingdom.	Yards. 1,170,553,819	Yards. 1,093,468,695	Yards. 1,086,235,672	Yards. 1,079,938,865	Yards. 1,138,343,726	Yards. 1,105,344,908	Yards. 690,898,451
Manufactured bleached piece goods imported into India from the United Kingdom.	285,358,911	269,804,109	233,373,431	342,376,839	277,875,450	279,123,208	197,243,573
Manufactured coloured, printed, or dyed goods imported into India from the United Kingdom.	318,051,544	254,842,804	320,935,918	299,536,401	315,345,829	355,845,715	223,613,014
Total - - - -	1,773,964,274	1,623,115,608	1,640,595,021	1,721,852,195	1,731,565,005	1,740,813,831	1,111,755,038

TABLE No. 5.

TOTAL EXPORTS from ENGLAND.

(From the English Board of Trade Returns.)

Year.	COTTON YARNS.				COTTON GOODS.			
	Quantities.	Increase + Decrease -	Values.	Increase + Decrease -	Quantities.	Increase + Decrease -	Values.	Increase + Decrease -
	Lbs.	per Cent.	£	per Cent.	Yards.	per Cent.	£	per Cent.
1850	131,400,000	—	6,400,000	—	1,358,200,000	—	20,500,000	—
1860	197,300,000	+ 50	9,900,000	+ 50	2,776,200,000	+ 104	40,300,000	+ 96½
1870	187,700,000	- 5	14,800,000	+ 50	3,252,800,000	+ 17	52,500,000	+ 30
1880	215,544,800	+ 15	11,901,623	- 20	4,495,645,000	+ 38	57,678,084	+ 10
1881	254,939,900	+ 18	13,165,053	+ 10	4,777,273,300	+ 6¼	59,103,921	+ 2½
1882	238,409,900	- 6½	12,867,113	- 2	4,348,764,300	- 9	55,459,093	- 6
1883	264,772,000	+ 11	13,509,732	+ 5	4,538,888,500	+ 4½	55,534,166	—
1884	271,077,900	+ 2½	13,811,767	+ 2½	4,417,481,000	- 2¾	51,661,408	- 7
1885	245,809,900	- 9½	11,865,294	- 14	4,374,516,500	- 1	48,276,855	- 6½
1886	254,346,100	+ 4	11,488,803	- 3½	4,850,030,200	+ 11	50,170,634	+ 4

No. 6.

MEMORANDUM drawn up by E. A. HAGUE, Esq.,
Manchester.

The following Oldham Mills have either been closed altogether by the Indian competition of the last few years or (where buildings and capital allowed) have been adapted for and changed to spin other counts.

MULE TWIST YARN 16/24*.

Number of Spindles.	Mill.	REMARKS.
12,000	No. 1	Sold out machinery.
10,000	" 2	Ditto.
6,000	" 3	Ditto.
40,000	" 4	Ditto.
13,000	" 5	Ditto.
40,000	" 6	One portion stopped. Other portion not reeling yarn.
80,000	" 7	Now making 30* and 40*.
50,000	" 8	Now making up to 40* for home use.
30,000	" 9	Spinning 6* and 24* for doubling.
11,000	" 10	Stopped for twelve months past.
15,000	" 11	Spinning 6/26* for doubling.
10,000	" 12	Ditto.
8,000	" 13	Ditto.
20,000	" 14	Spinning 20/34* for home use.
345,000	Total Spindles in 14 mills of which 7 are entirely stopped.	

No doubt more exhaustive inquiry would add to this list, which, moreover, does not include other towns such as Heywood and Rochdale, where also these counts were partially spun.

I have a further list of 15 other mills hitherto spinning 4* and 14* now closed, some undoubtedly by the competition of such mills as Nos. 9, 11, 12, and 13, which have been forced into adapting their machinery to spin lower Nos. than 16* though these counts were already adversely affected by hostile continental tariffs.

There is no doubt also that spinners of 16/24* water twist have been almost equally disastrously affected, but these spinners are so scattered about the country, from Rochdale to Wigan, that it is difficult, if not impossible to obtain reliable statistics.

The largest exporters of yarn to China and Japan, from tables which they keep, estimate the falling off of the exports to these markets during last years (1886) at—

300 bales (of 400 lbs. each) *weekly* of 16/24* Water and 200 " " " " Mule, from what they were four to five years ago, and there can be no doubt that practically this trade is being simply annihilated.

Be it remembered that up to four to five years ago this was a growing trade despite the competition of the Bombay mills, and it would have continued to grow but for the exchange difficulty.

Meantime, fostered by the quasi-protection of cheap silver these Indian mills enjoy a trade so profitable that in Bombay alone the mills have been doubled within 12 years and from eight to ten mills are now in process of construction in India besides works for bleaching, dyeing, printing, &c. Good spinning mills in Bombay have earned a steady 10 per cent. and upwards since 1878.

This same Indian competition has completely crippled Rossendale and the Todmorden Valley where coarse T. cloths, drills, sheetings, &c. &c. were largely manufactured for India and China. First they were mostly driven from the Bombay market, afterwards from Calcutta and Madras and now they have to meet the Indian goods in China and the East Coast of Africa, until it is probably true that half the manufacturers in these districts (of these goods, i.e.) have been ruined and their mills are empty where they could not be turned on to the manufacture of shirtings, &c. in competition with the Blackburn trade. True the distress in these districts was first caused by hostile continental tariffs, but they would have survived that but for the competition of the Indian mills.

This double cause makes it impossible to estimate the effect of the fall in exchange with any approach to the clearness with which it can be traced in the spinning interest, but there is another branch of trade which has been simply *extinguished* by the same cause, viz., that of *Chudders and Coarse Dhooties* made from about 20* yarns. This trade was the offspring of that "opening up of India" by the construction of new roads and railways.

It first sprang into existence some twelve to fourteen years ago, the demand being to replace the product of native hand-looms mostly from home-spun yarns. The

vastly superior quality of our own goods made from American cotton quickly brought them into favour and enabled us for long to withstand even the competition of Bombay mills. But latterly the trade has gradually died out and last year we did not make a single piece.

Table No. 7.

COTTON SPINNING, MANUFACTURING, and other COMPANIES. OLDHAM and DISTRICT.

(Taken from "The Oldham Chronicle" of 5th February 1887.)

Name of Company.	Shares.	Paid on.	Buyers.	Sellers.	Div.
Abbey	2 0	2 0 0	—	—	nil
" (pref.)	4 0	4 4 0	76/0	74/8 d	nil
Albany	5 0	2 10 0	6/6	5/9 d	nil
Albert	5 0	2 15 0	22/0	17/0 d	nil
Albion	100 0	40 0 0	10/0	30/0 p	2½
Astley	5 0	2 5 0	7/0	6/0 d	nil
Bankside	5 0	4 10 0	70/0	60/0 d	nil
Belgian	5 0	3 0 0	41/0	40/6 d	nil
Borough	5 0	3 0 0	19/6	16/0 d	nil
Boundary	5 0	3 0 0	19/0	16/0 d	nil
Broadway	5 0	5 0 0	56/0	49/0 d	nil
Brookbottom	5 0	3 0 0	41/0	39/0 d	nil
Butler Green	25 0	25 0 0	50/0	45/0 d	nil
Cambridge	5 0	4 0 0	40/0	32/0 d	nil
Cavendish	5 0	2 10 0	8/0	6/0 d	nil
Central	5 0	3 0 0	6/0	7/6 p	nil
Chadderton	100 0	50 0 0	par	10/0 p	4
Coldhurst	5 0	3 10 0	5/0	4/0 d	4½
Commercial	5 0	3 0 0	36/0	33/0 d	nil
Crawford	5 0	2 0 0	0/6	2/0 p	2½
Croft Bank	4 0	2 0 0	17/0	16/0 d	nil
Crompton	5 0	4 12 6	5/0	8/0 p	6½
Dowry	5 0	2 15 0	12/0	8/6 d	nil
Duchess	5 0	2 10 0	0/3	1/0 p	nil
Duke	5 0	2 10 0	1/9	2/3 p	4
Dukinfield Hall	5 0	5 0 0	35/0	30/0 d	nil
Equitable	5 0	5 0 0	58/0	60/0 d	nil
" (pref.)	5 0	5 0 0	18/0	16/0 d	10
Fern	100 0	40 0 0	20/0 d	par	3½
Garfield	5 0	2 0 0	3/6	1/0 d	5
Gladstone	4 10	3 10 0	46/0	44/6 d	nil
Godwick	5 0	4 0 0	45/0	41/6 d	nil
Granville	100 0	40 0 0	60/0	35/0 d	3½
Greenacres	5 0	4 0 0	28/0	26/0 d	nil
Green Lane (old)	50 0	50 0 0	£2	£6 p	5
(new)	50 0	1 0 0	10/0	20/0 p	5
Grimshaw Lane	100 0	60 0 0	£3	£5 p	nil
Grosvenor	5 0	2 15 0	40/0	35/0 d	nil
Guide Bridge	5 0	2 10 0	10/0	8/6 d	nil
Harper Twist	5 0	3 10 0	30/0	25/0 d	nil
Hathershaw	5 0	3 0 0	49/0	36/0 d	nil
Haugh	5 0	3 0 0	3/0	4/0 p	6½
Henshaw Street	5 0	4 15 0	75/0	70/0 d	nil
Hey	5 0	3 0 0	45/0	40/0 d	nil
Higginshaw	5 0	4 10 0	67/0	64/0 d	nil
Hollinwood	5 0	2 10 0	17/0	14/6 d	nil
Honeywell	5 0	5 0 0	12/0	11/0 d	nil
Hope	5 0	3 15 0	54/0	46/0 d	nil
Industry	5 0	4 5 0	75/0	71/0 d	nil
" (pref.)	1 0	1 0 0	13/0	9/0 d	nil
Ivy	5 0	1 15 0	10/0	9/0 d	nil
Junction	100 0	50 0 0	20/0	40/0 p	4
Lancashire	4 10	4 0 0	—	—	nil
Lansdowne	4 10	2 0 0	20/0	19/0 d	nil
Leesbrook	5 0	1 15 0	1/6 d	par	nil
Lees Union	9 0	6 0 0	63/0	61/0 d	nil
Lime	20 0	16 0 0	70/0	60/0 d	nil
Livingstone	5 0	2 0 0	27/0	24/0 d	nil
Longfield	5 0	5 0 0	84/0	78/0 d	nil
Lower Moor	5 0	3 15 0	5/0 d	3/0 p	8½
Mid. and T'ge (old)	10 0	10 0 0	40/0	30/0 d	nil
(new)	5 0	5 0 0	35/0	20/0 d	nil
Moorfield	5 0	4 0 0	12/0	9/0 d	2½
Moss Lane	10 0	5 0 0	5/0	7/0 p	5
Mossley	4 0	4 0 0	59/0	50/0 d	nil
New Earth	4 0	3 10 0	44/0	41/0 d	nil
New Hey	5 0	2 10 0	2/6	5/0 p	7½
New Ladyhouse	5 0	4 0 0	par	1/0 p	5
North Moor	5 0	3 0 0	1/0 d	par	3½
Oak	5 0	2 10 0	7/0	4/0 d	nil
Oldham and Lees	5 0	2 10 0	1/0 d	par	nil
Oldham Twist (old)	20 0	20 0 0	20/0	10/0 d	nil
(new)	20 0	10 0 0	20/0	10/0 d	nil
Olive	100 0	45 0 0	60/0	40/0 d	nil
Palm	100 0	40 0 0	30/0 d	10/0	5
Park and Sandy	5 0	3 10 0	26/0	20/0 d	nil
Parkside	5 0	3 0 0	0/6	2/0 p	6½
Phoenix	5 0	2 10 0	49/6	40/0 d	nil
Prince of Wales	5 0	3 0 0	34/0	30/0 d	nil
Quick Edge	5 0	4 10 0	48/0	40/0 d	nil
Ridgefield	5 0	4 15 0	50/0	40/0 d	nil
Rochdale	5 0	2 0 0	0/6 d	0/6 p	nil
Royton	5 0	3 0 0	5/0	6/0 p	6½
Shaw	5 0	3 10 0	14/6	12/0 d	nil
Shiloh	5 0	2 10 0	36/0	31/0 d	nil
Smallbrook	5 0	4 0 0	11/0	9/0 d	nil
Snalybridge	5 0	2 0 0	3/0	1/0 d	nil
Stanley	5 0	3 10 0	60/0	54/0 d	nil
Star	5 0	3 10 0	par	1/6 p	5½
Stook Lane	5 0	2 0 0	0/6 d	2/0 p	nil
Sun Mill	5 0	5 0 0	30/0	27/0 d	nil
Swan	5 0	4 10 0	30/0	28/6 d	nil
Thornham	5 0	3 5 0	11/0	9/0 d	nil
Tonge Vale (A.)	5 0	5 0 0	20/0	15/0 d	nil
(B.)	5 0	2 0 0	16/0	12/0 d	nil
United	5 0	3 0 0	18/6	16/0 d	nil
Werneth	5 0	3 0 0	18/0	16/0 d	nil
West End	10 0	5 0 0	50/0	45/0 d	nil
Westwood	5 0	3 0 0	0/6 d	2/0 p	3½
Whitelands Twist	5 0	2 10 0	6/0	4/0 d	nil
Windsor	5 0	2 10 0	9/0	7/0 d	nil
Woodstock	5 0	4 10 0	47/0	44/0 d	nil

APPENDIX X.

PAPERS PUT IN BY MR. H. H. GIBBS.

(1.) *Exchange v. Freights as a local influence on Exports.*
(See question 3049.)

When a country's exports possess an intrinsic value considerably higher than the charge for freight on them, their price in the currency of that country will be affected far more by fluctuations of exchange than by fluctuations of freights.

The reason is that exchange, when applied to first cost, influences the principal factor of the total cost, while an alteration in freights only affects a secondary factor in the total cost.

Picking them out at random, one might say that coffee, wool, cotton, sugar, wheat, indigo, nitrate of soda, and copper, would all serve to prove the truth of the above statement, but it will suffice to give examples from the last two articles named, nitrate and copper.

The currency price of nitrate in Valparaiso at the beginning of January 1886 was \$3 15c. per quintal of 100 lbs. Spanish, current freight was 26s. 3d. per English ton of 22 quintals Spanish, and the exchange ruling was 26½d. per dollar.

The average rate of exchange during that year was 23·76d. per Chilian dollar, and the average rate of freight was 24½ shillings per English ton respectively, 9·91 per cent. and 5·15 per cent. lower than the above-mentioned January quotations.

Supposing other conditions of the nitrate market to have remained the same during 1886, how would the said average declines of exchange and freights have respectively affected the currency price of \$3 15c. with which the year started.

As regards exchange, it is plain that an exporter could afford to increase his offer to buy by adding to the currency price the exact per-centage of the fall in exchange; therefore he could in the present instance add 9·91 per cent., or say 31c. to the original price of \$3 15c. But in considering how the fall in freights will affect the question, we must bear in mind that the decline of 5·15 per cent. cannot be applied direct to the currency price at all, but that it must, in the first instance, be applied to the proportion of freight corresponding to the weight of nitrate represented by said currency price.

This price is quoted per Spanish quintal, of which 22 go to the ton.

Therefore, we must first divide 26s. 3d. (the original freight by 22, which gives 1½ shillings per quintal) or, at 26½d. exchange, 59c. freight per Spanish quintal, on which a decline of 5·15 per cent. is equal to a reduction of 3c. per quintal for freight, which 3c. may now be added on to the price which the exporter can bid for the nitrate.

The calculation, therefore, stands as follows:—

Original price	-	-	-	\$	c.
Add, for decline in exchange, 9·91				3	15
per cent. on \$3·15	-	-	-	0	31
Add, for decline in freight, 5·15					
per cent. on \$·59	-	-	-	0	3
				3	49

The above figures show that while the decline in exchange would affect the currency price to the full extent of the per-centage of fall almost 10 per cent., the decline in freights, though 5·15 per cent. (more than half that of exchange) would only affect the price to the extent of 1 per cent.

The same result will appear in a still more marked degree if we take an illustration from copper.

The currency price of Chilian bar copper at the beginning of January 1886 was \$15·30 per Spanish quintal, and working on the same formula as the above for nitrate, we get the following figures:—

Original price	-	-	-	\$	15·30
Add, for decline in exchange, 9·91					
per cent. on \$15·30	-	-	-	1·51	
Add, for decline in freights, 5·15					
per cent. on \$·59	-	-	-	·03	
				16·84	

Here again, exchange affects the price to the full 9·91 per cent., while the decline in freights, 5·15 per cent., as before, only affects the price to the extent of a fifth of 1 per cent.

Copper therefore, owing to its greater value, was much more affected by exchange than nitrate. This, however, is only a side issue, and the principal point made plain by the foregoing calculations is that the fall in 1886 of 9·91 per cent. in exchange and 5·15 per cent. in freights was equivalent to the following advances on the January currency prices of nitrate and copper, viz.:—

			c.
Nitrate, equivalent extra price for			
lower exchange	-	-	·31
Nitrate, equivalent extra price for			
lower freight	-	-	·03
Total per quintal	-	-	·34
			\$
Copper, equivalent extra price for			
lower exchange	-	-	1·51
Copper, equivalent extra price for			
lower freight	-	-	·03
Total per quintal	-	-	1·54

which figures are an emphatic confirmation of the opinion expressed at starting, that exchange exercises a far greater influence than freights on the currency prices of relatively valuable produce.

JOHN MANLEY LOWE.

London, February 23, 1887.

(2.) *Memorandum on the influence of the depreciated Currency in Chile on its Export Trade with the United Kingdom.* (See question 3192).

The principal exports of Chile,—wheat, copper, silver, and nitrate, have all been benefited by the depreciation of the currency in that country. The best example is wheat, as it has benefited more than the other three, and we will endeavour to show how it has been specially favoured by the declining gold value of the national currency.

To do this it will be necessary to study briefly the conditions under which it is cultivated.

Roughly speaking, Chilian wheat is produced by unskilled, and, therefore, ill-remunerated labour. The land for the most part is owned by Chilians, the farms

are very large, the soil usually good, and the tillage superficial and inexpensive. The agricultural labourers are of mixed Spanish and Indian blood, and, though very strong and hardworking, are notoriously as ignorant and backward as any Roman Catholic peasantry in the world; hence they are slow in understanding that a depreciated currency works against them in the matter of wages.

But even if they were quicker in perceiving the effect of exchange on their wages, it would not make much difference, because they only receive the smaller part of their remuneration in actual money.

A resident labourer on the estate will be allowed—

A cottage, rent free.

A piece of land, perhaps half an acre, rent free, and free use of his master's bullocks to plough it with.

A daily ration of bread and beans, and from 7*d.* to 10*d.* per day in cash.

Between his rations and the produce he gets off his patch of land he has sufficient food for his family; he can grow his own tobacco, and he drinks wine or spirits made from farm produce, grapes, or maize.

The only point where exchange touches him is in buying clothes, but, owing to the generally mild climate, his wants in this respect are very moderate, and he spends next to nothing on imported goods.

From the foregoing it will be seen that however much the currency may fall in its gold value, the Chilean agricultural labourer's subsistence is always secured to him, and that he is only harmed, and that to a small extent, by the shrinking of the money part of his remuneration. Computing the money value of his services at 2*s.* 6*d.* per day, of which only 10*d.* is paid in cash, and supposing the currency to have depreciated 50 per cent., it is clear that he is only affected to the extent of 5*d.* per day, or less than 17 per cent. of his total earnings.

Therefore, even supposing him to find this out immediately, and to have the means to enforce his claim (both of which suppositions are contrary to experience) his employer will only have to increase his total wages 17 per cent. to redress his grievance.

Now let us look at the farmer's side of the question, bearing in mind that he employs no skilled labour, uses no artificial manures, and that his labourers till the land with the cattle bred on the estate.

We will assume his wheat, at 46*d.* exchange to have been worth for export \$4 per hectolitre of 166 lbs. Spanish, and that the gold value of the currency has gradually receded to 23*d.* per dollar.

We will also assume that at 46*d.* exchange his wheat was costing him \$3 per hectolitre, of which the half for labour, and the rest for general farm expenses, freight by rail to the nearest port, and shipping expenses.

In the first instance, with exchange at 46*d.*, he can sell his wheat at \$4, equal to 15*s.* 4*d.*, but in the second exchange has receded to 23*d.*, while the price of wheat in Europe and other conditions have remained the same. The Valparaiso merchants can still afford to pay the equivalent of 15*s.* 4*d.* for the wheat, and competition will oblige them to do so. But 15*s.* 4*d.* at 23*d.* is equal to \$8, or double the price which the farmer formerly got, so that his gross currency profit on an hectolitre of wheat will be \$5, instead of \$1, as in the first example considered.

We have now only to examine what effect the lower exchange will have on his cost of production, which we have assumed to be \$3 when exchange was 46*d.*

	\$	c.
Proportion of wages to total cost of producing wheat, one-half of \$3	1	50
Deduct, paid by free rations, &c.	1	0
Payment of wages in actual money -	0	50
	\$	c.
50 per cent. depreciation in exchange, made good -	0	25
Extra cost of bagging -	0	10
Sundries, say -	0	5
Total extra expenditure, per hectolitre -	0	40

which will leave the farmer with a nett profit of \$4 60 c. at 23*d.*, while he only made \$1, when exchange was at 46*d.*

It is thus easy to understand how Chile has maintained its position as a wheat exporting country in spite of the collapse in the European price of wheat. When exchange stood at 46*d.* the European price of wheat was in the neighbourhood of 55*s.* per qr., while within the last two years it has touched 30*s.*, and exchange has been below 23*d.* Thus, although wheat in Europe has fallen 45 per cent., the currency price in Chile has, as a rule maintained, and sometimes exceeded, its level in former years, in some measure owing to the steady decline in freights, but more particularly to the rapid depreciation of the currency of the country.

The Chilean farmers have been doubly benefited by the fall in exchange, as it has not only tended to increase their incomes, but has at the same time reduced their debts.

As a class they were heavily under advance to the various banking establishments in the country, but of late years they have been receiving extra profits arising from the lower exchange, and have been using these profits to pay off in dollars worth, perhaps 23*d.* currency debts incurred when the dollar was very likely worth 40*d.* or more. It is easy to see what a stimulating effect this would have on their business, and how it would encourage them to increase their wheat acreage.

Altogether, it may reasonably be inferred that if the price of wheat in Europe had been maintained, and Chilean currency had fallen to its present level (23*d.* to 24*d.*), exports would probably have been doubled long ere this, or conversely.

If the price of wheat had receded to 30*s.*, and Chilean exchange had remained steady at 46*d.*, the export of wheat would have been seriously curtailed, if not rendered, altogether impossible.

As it is, the fall in the European price of wheat has been more than counterbalanced by the depreciation in the Chilean Exchange; no extreme effects have been felt either way, but the falling Exchange, assisted by the decline of freights, has enabled the Chilean farmer in many instances to do considerably better than he did formerly with a high price of wheat in Europe and a high exchange on the coast, and has therefore directly tended to protect and stimulate exports.

What is true of wheat is also true, to a less extent, of copper and silver, and to a still less extent, of nitrate. In the production of copper and silver, skilled labour and imported coal, coke, &c. are used, and to a large extent increase the currency cost in direct ratio with the fall of exchange. In the production of nitrate, the currency wages paid to unskilled labour form a still less important item in the total cost, the bulk of which is on a sterling basis, and therefore not affected by fluctuations in exchange. Wheat therefore seems the best article to single out for the purpose of tracing the influence of a depreciated currency on Chilean exports.

JOHN M. LOWE.

London, February 14, 1887.

APPENDIX XI.

Papers put in by Mr. A. D. PROVAND, M.P.

(1.) TABLE showing PRICES at SHANGHAI in each month, from March to August 1886, of six imported articles of Standard quality and also the RATE of EXCHANGE for demand BANK BILLS on LONDON. (See Question 3312.)

	March	April	May	June	July	August
Rate of exchange, per tael -	4/7	4/6½	4/6½	4/6½	4/4½	4/2½
Lead, L.B. brand, per picul -	4'45	4'22½	4'27½	4'15	4'12½	4'25
Tin plate, 10×14, per box -	4'12½	4'12½	4'12½	4'12½	4'12½	3'90
Nail Rods (Dawes), per picul -	2'00	2'00	2'00	2'00	2'00	2'00
Spanish stripes, H.H., per yard -	0'48½	0'46½	0'46½	0'47½	0'47	0'50
Long ells (scarlet) H.H., per piece -	5'12½	5'12½	4'82½	4'74	4'94	5'10
8½ lb. gray shirtings -	1'73	1'73	1'72	1'71	1'72	1'75

Note.—From March to August exchange fell eight per cent. To meet this there was no corresponding advance in the prices of goods. Nearly all the six articles were actually

lower in August than they had been in March, notwithstanding that the largest business during the year is done during the months from March to August.

(2.) TABLE showing RESULTS of 56 TRANSACTIONS completed with SHANGHAI between January 1886 and May 1887. (See question 3289.)

	1.		2.		3.	4.		5.	6.		7.		8.		9.	
Dates.	Banks buying Rates in London for 60 days Drafts on Shanghai.		Banks selling Rates for telegraphic transfers in Shanghai on London on the same date.		Differences between the Rates in Columns 1 and 2.	Rates of Interest per Annum which selling Drafts at the Rates in Column 1 would be to the Merchants assuming exchange did not alter during the Currency of the Drafts.		Due dates in Shanghai of Drafts sold in the Dates in the Margin, allowing 42 Days for passage and 63 for usance and grace. Total 105 Days.	Actual Telegraphic Rates in Shanghai on London on the Dates in Column 5.		Plus and Minus differences between the Banks buying Rates (Column 1) and their selling Rates for telegraphic Transfers in Shanghai on the due Dates of the Drafts (Column 5).		Actual Rates of Interest per Annum paid by Merchants who sold Drafts at the Rates of exchange in Column 1 (on account of the rise in exchange during the Currency of the Drafts.)		Actual profits to Merchants who had sold Drafts at the Rates of exchange in Column 1 (on account of the fall in exchange during the Currency of the Drafts.)	
1886.	s.	d.	s.	d.	d.			1886.	s.	d.	d.					
January 12	4	5½	4	6½	1	6½ per cent.		April 27	4	6½	+1½		9½ per cent.		—	
19	4	5½	4	7½	2	13 "		May 4	4	6½	+ ½		4 "		—	
26	4	5½	4	7½	1½	9 "		11	4	6½	+ ½		3½ "		—	
February 2	4	5½	4	7½	1½	9½ "		18	4	5½	=		—		—	
9	4	5½	4	7	1½	11½ "		25	4	6½	+1		6½ "		—	
16	4	5½	4	6½	1½	7½ "		June 1	4	5½	+ ½		1½ "		—	
23	4	5½	4	6½	1½	7½ "		8	4	6	+ ½		2½ "		—	
March 2	4	5½	4	6½	1½	7½ "		15	4	5½	=		—		—	
9	4	5½	4	6½	1½	7½ "		22	4	5½	— ½		—		½ per cent.	
16	4	5½	4	6½	1½	7½ "		29	4	5	— ½		—		1 "	
23	4	5½	4	6½	1½	7½ "		July 6	4	4½	—1½		—		2½ "	
30	4	5½	4	6½	1½	7½ "		13	4	3½	—2½		—		4 "	
April 6	4	5½	4	6½	1½	8 "		20	4	3½	—2		—		3½ "	
13	4	5½	4	6½	1½	10 "		27	4	3½	—2½		—		4 "	
22	4	5½	4	6½	1½	8 "		August 5	4	2½	—2½		—		5½ "	
29	4	5½	4	6½	1½	8 "		12	4	3½	—2½		—		4½ "	
May 6	4	5	4	6½	1½	9 "		19	4	2½	—2½		—		5 "	
13	4	5	4	6½	1½	8½ "		26	4	3	—2		—		3½ "	
20	4	4½	4	5½	1½	7½ "		September 2	4	3	—1½		—		3 "	
27	4	4½	4	6½	1½	11½ "		9	4	4½	— ½		—		1 "	
June 3	4	4½	4	5½	1½	9 "		16	4	4½	— ½		—		½ "	
10	4	4½	4	6	1½	9 "		23	4	4½	*		—		—	
17	4	4½	4	5½	1	6½ "		80	4	5	+ ½		2½ per cent.		—	
24	4	4½	4	5½	½	5 "		October 7	4	5½	+ ½		4 "		—	

(2.) Table showing Results of 56 Transactions—continued.

		1.	2.	3.	4.	5.	6.	7.	8.	9.
Dates.		Banks buying Rates in London for 60 days Drafts on Shanghai.	Banks selling rates for telegraphic transfers in Shanghai on London on the same date.	Differences between the Rates in Columns 1 and 2.	Rates of Interest per Annum which selling Drafts at the Rates in Column 1 would be to the Merchants, assuming exchange did not alter during the Currency of the Drafts.	Due dates in Shanghai of Drafts sold in the Dates in the Margin, allowing 42 Days for passage and 63 for usance and 63 for Total 105 Days.	Actual Telegraphic Rates in Shanghai on London on the Dates in Column 5.	Plus and Minus differences between the Banks buying Rates (Column 1) and their selling Rates for telegraphic Transfers in Shanghai on the due Dates of the Drafts (Column 5).	Actual Rates of Interest per Annum paid by Merchants who sold Drafts at the Rates of exchange in Column 1 (on account of the rise in exchange during the Currency of the Drafts.)	Actual profits to Merchants who had sold Drafts at the Rates of exchange in Column 1 (on account of the fall in exchange during the Currency of the Drafts.)
1886.		s. d.	s. d.	d.		1886.	s. d.	d.		
July	1	4 4	4 5	1	6½ per cent.	October	4 5½	+1½	9½ per cent.	—
	8	4 3	4 4½	1½	9½ "	21	4 5	+2	18½ "	—
	15	4 2	4 3½	1½	10 "	28	4 5½	+3½	24½ "	—
	22	4 2	4 3½	1½	11½ "	November	4 6½	+4½	28½ "	—
	29	4 2	4 3½	1½	9½ "	11	4 6½	+4½	31½ "	—
August	5	4 0½	4 2½	2½	15½ "	18	4 7½	+6½	40½ "	—
	12	4 0½	4 3½	2½	17½ "	25	4 8	+7½	52 "	—
	19	4 0½	4 2½	1½	18½ "	December	4 8	+7½	58½ "	—
	26	4 0½	4 3	2½	16 "	9	4 8	+7½	52 "	—
September	2	4 1	4 3	2	14½ "	16	4 7½	+6½	40 "	—
	9	4 1½	4 4½	2½	17½ "	23	4 6½	+5	35 "	—
	16	4 1½	4 4½	2½	18½ "	30	4 6½	+4½	33½ "	—
	23	4 1½	4 4½	2½	20½ "	January	4 6½	+5½	36½ "	—
	30	4 2½	4 5	2½	16½ "	13	4 7½	+5	35 "	—
October	5	4 2½	4 5½	2½	19 "	18	4 8	+5½	38 "	—
	12	4 3½	4 5½	2½	14½ "	25	4 7½	+4½	29½ "	—
	19	4 3½	4 5	1½	10 "	February	4 7½	+3½	24½ "	—
	26	4 3½	4 5½	1½	11½ "	8	4 6½	+2½	19½ "	—
November	2	4 4	4 6½	2½	14½ "	15	4 6½	+2½	16½ "	—
	9	4 4	4 6½	2½	16½ "	22	4 5½	+1½	10 "	—
	16	4 5	4 7½	2½	15½ "	March	4 5½	+ ½	2½ "	—
	23	4 5	4 8	3	19½ "	8	4 5½	+ ½	1½ "	—
	30	4 4½	4 8½	3½	22½ "	15	4 4½	— ½	—	½ per cent.
December	7	4 5½	4 8	2½	18 "	22	4 4½	—1½	—	2 "
	14	4 5½	4 7½	2½	17½ "	29	4 4	—1½	—	2½ "
	21	4 4½	4 6½	2½	15 "	April	4 3½	—1	—	2 "
	28	4 4½	4 6½	2	13½ "	12	4 3½	—1	—	2 "
1887.		s. d.	s. d.	d.		1887.	s. d.	d.		
January	4	4 4½	4 6½	2½	14 "	19	4 4	— ½	—	1½ "
	11	4 5½	4 7½	2½	14½ "	26	4 4½	— ½	—	1½ "
	18	4 5½	4 8	2½	16½ "	May	4 4	—1½	—	2½ "
	25	4 5½	4 7½	2	13½ "	10	4 3½	—1½	—	3½ "
February	1	4 5½	4 7½	1½	10½ "	17	4 4	—1½	—	2½ "

The above table of 56 completed transactions with Shanghai during the past 13 months shows how the export trade from the United Kingdom to China is affected by the fluctuations in the rate of exchange.

Columns 1, 2, and 3 show the position when each draft was sold; the average value of the tael in column 1 is 4s. 4½d., and as the average difference between the rates in columns 1 and 2 is 1½d. (column 3), this on 4s. 4½d. for 105 days, the currency of the drafts (see heading, column 5), is at the rate of 11½ per cent. per annum, which the merchant would have paid for the use of the money, assuming the rate did not alter during the 105 days.

Column 4 shows that the rates at the different dates varied from 6½ per cent. to 23½ per cent. (the average of the 56 transactions being 11½ per cent., as stated above) according to the view the bank took of the future of the rate of exchange.

Column 5 shows the due dates of payment in Shanghai of the various drafts.

Column 6 shows the rates for telegraphic transfers in Shanghai on London on the dates as near as they can be ascertained when the bank was paid the drafts.

Column 7 shows the differences between the telegraphic transfer rates when the drafts were sold to the bank (column 2) and when they were paid to the bank (column 7) and the variations of exchange were meantime so great that—

Column 8 shows that the merchants who sold at the rates in column 1 paid varying rates of interest (as com-

pared with those who did not sell) up to 52½ per cent. per annum; and

Column 9 shows that those who sold at the rates in column 1 had the use of the money for the 105 days (for nothing where marked *) and made a profit besides varying from ½ per cent. to 5½ per cent. on the transactions noted in this column, the fall in exchange had been so great meantime.

It follows from the above that the merchants who sold their drafts forward usually lost on the transactions, when exchange meanwhile advanced, and on the other hand the merchants who did not sell forward, but took the rate ruling in Shanghai when the goods were sold, usually lost when exchange fell, and the conflicting interests of the two classes of merchants kept the rates for imports in Shanghai fairly steady. Cotton goods is the largest item of our exports to China, and while exchange fell 11 per cent. between January and August 1886, and rose as much between August 1886 and January 1887, the Manchester prices of cotton goods varied only about 3 per cent. during these 13 months. The merchant's ventures were therefore chiefly in exchange and not in Manchester goods. The trade is keenly competed for. If a merchant was fortunate in selling drafts forward, or in not doing so, he would likely gain, but if not fortunate, loss was certain, and as loss might come by either a rise or a fall in exchange, instead of the merchant being described as an exporter of cotton goods to China, it would be a more accurate description to say he was a speculator in exchange with China by means of cotton goods.

APPENDIX XII.

CORRESPONDENCE between the TREASURY, the INDIA OFFICE, and the GOVERNMENT OF INDIA.

The SECRETARY of the TREASURY to the CHAIRMAN of the GOLD and SILVER COMMISSION.

Treasury Chambers,
25th November 1886.

SIR,

I AM directed by the Lords Commissioners of Her Majesty's Treasury to request you to lay before the Royal Commission on Gold and Silver the enclosed copy of a letter upon the silver question which has been addressed to them by the Secretary of State in Council of India.

My Lords note the earnestness with which the Government of India urge upon the Secretary of State the difficulties of the situation. It is not necessary for them here to enter upon the discussions which have taken place between the Treasury and the Secretary of State on the silver question. The Treasury, however, while differing widely from the Secretary of State upon many points, has never questioned the inconvenience to which the fall and the fluctuations in the gold price of silver subject the Government of India, and my Lords would be ready to promote by legitimate means, not involving a charge on the taxpayer of the United Kingdom, an extended use of silver in this country. They can only assure the Royal Commission that any suggestion which may be made by a body so well qualified to express an opinion on the subject, will receive their most respectful attention.

I am, &c.

(Signed) W. L. JACKSON.

The Right Hon. A. J. Balfour, M.P.,
Chairman of the Gold and Silver Commission.

Enclosure.

India Office, Whitehall, S.W.,
4th November.

SIR,

IN January last, under the direction of the Secretary of State for India (then Lord Randolph Churchill) in Council, I had the honour to address you, for the information of the Lords Commissioners of Her Majesty's Treasury, on the subject of the serious difficulties which had been caused in the financial administration of India, by the continued fall in the price of silver in relation to gold, and the uncertainty that existed as to the future exchange value of the rupee.

Subsequently a letter was forwarded to the Treasury, which had been received from the Government of India, stating at some length the grounds on which they considered that it was desirable to endeavour to settle the silver question by international agreement.

At the end of May Mr. Fowler, the Secretary of the Treasury, replied, on behalf of the Lords Commissioners, to the letter in which the Secretary of State in Council had called the attention of their Lordships to this subject. For reasons which were stated in my letter of the 7th July, the Secretary of State in Council while taking specific exception to certain statements contained in the Treasury letter, abstained from entering into a discussion on the subject, which, it was understood, was under the notice of the Royal Commission on the Depression of Trade, and expressed the hope that another opportunity might be afforded at an early date for the consideration of the question in which the Government of India had so great an interest.

A copy of the correspondence between this Office and the Treasury having been sent to the Governor General of India in Council, the Government of India has addressed to the Secretary of State for India a letter replying to Mr. Fowler's letter of the 31st of May last, and I am now directed to forward a copy of this letter for the information of the Lords Commissioners of the Treasury, with the following remarks.

Her Majesty's Government having resolved that it was expedient to refer the whole of the questions arising in connexion with the recent changes in the relative values of the precious metals to a Royal Commission, and such a Commission having now been appointed, the Secretary of State for India in Council considers that it will be desirable

that copies of the correspondence that has been above referred to should be laid before the Commission, and he will further be prepared to furnish it with any other information on the subject of their inquiry which may be at his disposal.

It would obviously be out of place at the present moment to attempt any discussion of the more technical points raised by the Government of India relative to the desired establishment of a fixed ratio between gold and silver for currency purposes, as these are among the chief subjects on which the opinion and advice of the Royal Commission have been asked, and that body will have to judge of the relative weight of the arguments addressed by the Governor General of India in Council and of those to which they are designed to reply.

Neither does it seem desirable to offer any comments on the question whether India has, in respect to its trade or otherwise economically, gained or lost by the effect of the recent fall in the value of silver in relation to gold. The facts bearing on this part of the subject are, however, of great interest; they have received special attention in the Financial Department of the Government of India, and a copy of a note prepared by the Assistant Secretary in that department is annexed.

Viscount Cross entirely concurs with the Government of India in the observations contained in paragraphs 15 and 16 of their letter so far as they relate to certain proposals affecting the Indian coinage made in 1878, which had not been renewed or even referred to on the present occasion. In addition to the general explanations afforded in paragraphs 17 to 22 relative to the growth of Indian expenditure, it may further be stated that much of the apparent growth of expenditure referred to in the Treasury letter is due to changes in the form of the Indian accounts and to the exhibition of charges on account of public works, affecting alike both the receipts and expenditure which in former years had been excluded from the published statements.

The Secretary of State for India in Council likewise desires especially to repudiate the idea apparently entertained in some quarters that the Government of India has been unduly influenced in its representations on this subject by the personal interests of the English officials in India, otherwise than so far as every Government not only may, but is in duty bound to consider the welfare of its servants.

In conclusion, Viscount Cross will only repeat the opinions expressed by Lord Randolph Churchill in January last, and reiterated by the Government of India time after time, as to the difficulties and dangers to which India is exposed by the present state of the silver question. "Further taxation appears at present inevitable" says the Viceroy in his last letter "and when we have again established equilibrium there is no prospect that the settlement will be final or even reasonably permanent," and he concludes by saying, "we do not, therefore, hesitate" emphatically to repeat that from the point of view of "Indian finance the position has become intolerable."

I have, &c.

(Signed) J. A. GODLEY.

The Secretary to the Treasury.

No. 277 of 1886.

GOVERNMENT OF INDIA.

DEPARTMENT OF FINANCE AND COMMERCE.

ACCOUNTS AND FINANCE.

To the Right Hon. VISCOUNT CROSS, G.C.B., Her Majesty's Secretary of State for India.

MY LORD, Simla, 4th September 1886.

We have the honour to acknowledge receipt of Lord Kimberley's Financial Despatch No. 194, dated 8th July 1886, forwarding a copy of correspondence with the Treasury on the subject of the settlement of the exchange question by international agreement.

2. In our Despatch No. 45, dated 2nd February 1886, we pressed upon Lord Randolph Churchill the extreme importance in the interests of our Government of settling the silver question by international agreement, and we observe with much satisfaction that in Mr. Godley's letter of 26th January 1886, addressed to the Lords Commissioners of Her Majesty's Treasury, the Secretary of State for India in Council stated that he could not avoid "the conclusion that it is imperatively necessary to make every effort to find some remedial measure which will relieve the Government of India from the position in which it is now placed," and that "the comparative stability of the relative value of gold and silver" was "essential for the regular course of trade" and "of vital importance to India." The Lords Commissioners of Her Majesty's Treasury replied, in Mr. Fowler's letter of 31st May 1886, to our proposals and to the communications made by the Secretary of State for India in Council, that they could take no measures for summoning, or co-operating in, a new Monetary Conference until they had previously determined what policy they should initiate, or could assent to; that the whole question was understood to be under the consideration of the Royal Commission on the Depression of Trade; and that there was nothing in the correspondence and information before the Lords Commissioners which should induce them to depart from the instructions given to the Representative of England at the Monetary Conference of 1881. The instructions given to the English delegate at that Conference were to the effect that "he would assist at the meetings of the Conference solely in order to be a medium of communication, and to afford information which the Conference may require, but with no power of voting."

3. We observe that your Lordship's predecessor did not propose to continue at present the discussion of this important matter with the Treasury. We have no wish to question the expediency of this decision; but, in view of the probability of the subject being again taken into consideration in compliance with the recommendations of the Royal Commission now inquiring into the causes of the depression in trade, we think it of importance to acquaint your Lordship with our views on the main points raised in the letter from the Lords Commissioners of Her Majesty's Treasury, dated 31st May 1886. We cannot, meanwhile, in view of the experience gained since 1881, and of the grave importance of the question, avoid expressing disappointment at learning that Her Majesty's Government proposes to adhere to a purely passive attitude, and that the Government of India is to meet its pressing financial difficulties unaided, or with such assistance as it may derive from the action of foreign nations. We trust that this decision is not irrevocable, and that the result of the deliberations of the Royal Commission, which we hope will be appointed for the special purpose of examining the silver question, may be to disclose some method of relief for our finances which will, at the same time, be acceptable to Her Majesty's Government.

4. We understand the grounds on which the Lords Commissioners of Her Majesty's Treasury decline to take any steps at present towards a settlement of the silver question by international agreement to be as follows:—

Firstly, that it is doubtful whether it is possible to secure stability of value between gold and silver.

Secondly, that it is not proved that any measures which would raise the gold value of silver would on the whole be a gain to India.

Thirdly, that the arguments employed against the proposals made by the Government of India in 1878 have never been answered, and retain their full force.

Fourthly, that the difficulty can be met in great measure by reduction of expenditure.

Fifthly, that the Government of India has not distinctly stated the nature of the remedy which it proposes.

We propose to deal with these arguments in the order in which we have stated them.

Possibility of maintaining stability of relative value of Gold and Silver.

5. The Lords Commissioners remark that the question of the possibility of maintaining a fixed ratio between gold and silver is "one of the most disputable and disputed points in economic science," and they quote the declaration recorded by the representatives of Her Majesty's Government at the International Monetary Conference of 1878 that "the establishment of a fixed ratio between gold and silver is utterly impracticable."

We desire to observe that the establishment of a fixed ratio between gold and silver may be held, as in the words above used, to be utterly impracticable, either because it is theoretically impossible to devise measures which would

have the desired effect, or because it is practically impossible to secure the adoption of these measures as the result of international agreement. If it is meant that it is theoretically impossible to secure stability of value between gold and silver, we cannot do more, within the limits of a despatch, than refer to the facts that the first 70 years of the present century, and to the numerous treatises in which the theoretical possibility of maintaining a fixed ratio has been demonstrated. But if, on the other hand, the Lords Commissioners refer to the practical difficulty of securing an international agreement on a sufficiently wide basis, we beg that reference be made to the proceedings of the Monetary Conference of 1881. The Conference of 1881 was held at the instance of France and the United States of America, and the following are the words of the note forwarded by the United States Minister in London to Her Majesty's Secretary of State for Foreign affairs:

"The Government of the Republic of France and the Government of the United States having exchanged views upon the subject of a conference between the Powers principally interested in the question of establishing internationally the use of gold and silver as bi-metallic money, and securing fixity of relative value between these metals, and finding themselves in accord as to the usefulness and importance of such a conference, and as to the time and place at which the same should be held, have the honour now to invite the Government of Great Britain to take part in a conference, by such delegates as each Government may appoint, to be held at Paris on Tuesday, the 19th day of April next, to consider and adopt for presentation to the Governments so represented, for their acceptance, a plan and system for the establishment by international convention of the use of silver and gold as bi-metallic money at a fixed relative value between these two metals."

France and the United States are the two nations whose influence, with the exception of that of England and India would be the most powerful in maintaining the stability of the relative value of gold and silver; and the words of the note above quoted show in unmistakeable terms that, whatever views may be elsewhere entertained, the Governments of those countries considered the establishment of a fixed ratio both practicable and expedient.

6. At the Conference the attitude of the delegates, excluding those of France and the United States, was generally one of reserve, each country desiring to retain for itself complete liberty of action; but the delegates of Holland and of Italy distinctly avowed their desire to see the free coinage of both gold and silver at a fixed ratio. M. Pierson, delegate of Holland, observed: "The adoption of the bi-metallic system is the only means of escaping from the annoying situation in which we are placed. That, at least, is the conclusion we have arrived at in Holland." M. Seismit-Doda, delegate of Italy, observed: "The Italian delegates associated themselves fully with the declarations presented by Messrs. Denormandie and Cernuschi, as well as Sir Louis Mallet, on the subject of the necessity of raising the value of silver, and of establishing a fixed ratio between the two metals." The delegate of Austro-Hungary, in view of the fact that the currency of that country consisted of inconvertible paper, was unwilling to adopt an attitude other than that of reserve; but nevertheless Count Kufstein declared: "Still they felt no hesitation in saying that as in the Conference of 1878, so for the future, their sympathy was with any measure which might be adopted with the aim of improving or re-establishing as much as possible the position of silver. They therefore hoped that the Conference would not separate without having adopted some remedy to obviate the inconveniences of the present monetary situation, which they believed in many ways to be a grave one."

7. As the attitude of Germany at the Conference is of special importance, we quote at some length the words of Baron Thielmann, the delegate of that country:—"We acknowledge, without reserve, that the rehabilitation of silver is desirable, and that it could be attained by the re-establishment of the full coinage of silver in a certain number of the most populous States represented at this Conference, which for this purpose would take as a basis a fixed proportion between the value of gold and that of silver. Nevertheless, Germany, whose monetary reform is already so far advanced, and whose general monetary situation does not seem to invite a change of system of such vast importance, does not find itself able to concede, as far as it is itself concerned, the full coinage of silver. Its delegates cannot therefore agree to such a proposal. The German Government is, on the other hand, entirely disposed to help as far as possible the efforts of the other Powers which might be willing to unite, with a view to the rehabilitation of silver by means of a full coinage of this metal. To attain this end, and to guarantee these Powers against the influx of German silver which they

"seem to dread, the German Government will impose "some restrictions on itself." When Baron Thielmann was asked if the attitude of England had been the cause of the reserve shown by Germany, he replied "that the "attitude of England had had some effect on the resolution of the German Government," as it was "necessary "for the German Government to pursue a monetary system "similar to that of England." There is, therefore, reason to believe that if Her Majesty's Government had shown a stronger desire to further the objects of the Conference, Germany would have been prepared to take steps in the same direction.

8. In view of the opinions expressed by France, the United States of America, Austro-Hungary, Italy, and Holland in favour of the establishment of a fixed ratio between gold and silver, and of the undoubtedly favourable attitude of Germany, and the evident inclination of that Power to follow the lead of England, it appears to us reasonable to conclude that it was within the power of Her Majesty's Government at the Conference of 1881 to have secured the adoption of a fixed ratio; and as the evils due to the non-existence of a fixed ratio have manifested themselves in an aggravated degree since 1881, we may reasonably conclude that it is still within the power of Her Majesty's Government to secure this result, if willing to exert its influence for that purpose. Looking to the facts we have just stated, we are unable to admit the contention that the establishment of a fixed ratio is impossible because international agreement cannot be secured. It appears to us that if Her Majesty's Government abandoned the attitude of absolute reserve which they have so long maintained to the injury, as we believe, alike of England and India, there would remain no obstacle to the establishment of international agreement which could not be surmounted. Even allowing, for the sake of argument, that it should prove impossible to secure the establishment of a fixed ratio on a sufficiently wide basis to permanently maintain that ratio, we see no reason to doubt that that the active and sympathetic intervention of Her Majesty's Government would secure the adoption of measures which would tend in that direction, and which would at any rate have the effect of mitigating existing evils, and of removing grave grounds of apprehension as regards the future.

9. In connexion with the question of the possibility of maintaining a fixed ratio between the two metals, we further desire to observe that, in quoting the opinion of Mr. Goschen, Mr. Gibbs, and Sir Thomas Secombe as recorded in 1878, the Lords Commissioners of Her Majesty's Treasury appear to have attached little weight to the extremely important fact that since the expression of opinion by the representatives of England in 1878, the evils of the unsettled state of the silver question have become greatly aggravated, that the question has been far more thoroughly discussed, and that both the origin of the disease and the nature of the remedy are better understood. It seems to us to be at least possible that if an opinion were obtained in 1886, it might differ from that given in 1878; and we know that in the case of one of the gentlemen cited, the opinion expressed in 1878 has been entirely repudiated.

10. We have no opportunity of ascertaining the views on this question which Sir Thomas Secombe may now hold, nor are we aware whether Mr. Goschen considers the impracticability of establishing a fixed ratio as great as it appeared to be in 1878; but we observe that in 1878 Mr. Goschen concurred with the other representatives of England in holding "that a campaign undertaken against "silver would be exceedingly dangerous, even for the "countries which have given a position as legal tender only "to gold." Again, in a speech "on the condition and prospects of trade" delivered by Mr. Goschen at Manchester on 23rd June 1885, we find him reported to have expressed himself as follows:—

"Now let me take the silver question. It is impossible to embark upon that or upon the appreciation of gold in a satisfactory manner in a few sentences, because it would take a whole speech to itself. But there is one point connected with the silver question which I will touch, and it is the insecurity which it imparts to trade with the silver-using countries. That must affect your dealings with India and with others, and I am sorry to think that with regard to that insecurity there is no hope till you know what the United States will do with respect to the Bland Bill. It seems to me that we must almost conclude that the uncertainty in the trade of the silver-using countries will increase, and that the position in that respect must get worse; and I do not hold with those who think that this country has little interest in the question because we are a creditor country. This is an argument which is often put forward that we are a creditor country, and that as amounts are due to us in gold, therefore the more gold will command for commodities the better for

this country. But we are not all creditors; and though we may in the balance be a creditor country, there is an enormous interest in our trade with the silver-using countries; and so I trust that this silver-question will fairly be kept in view by those who are responsible for our Indian Empire. It is a question of the deepest interest. As I have said, it is impossible for me at this moment to expatiate upon the subject; but I must submit that is a factor in the case, and a very important factor too."

Finally, we find from Hansard (3rd series, vol. ccciii, page 1491) that during the late session of Parliament, Mr. Goschen addressed the following question to the Chancellor of the Exchequer:—

"Whether in view of the deep and increasing interest shown in various parts of the country on the silver question, he will consider the expediency of separating this urgent subject from the other matters referred to the Royal Commission on the Depression of Trade, and of appointing a separate Commission to inquire into the position of silver, the condition of the currency, and the various plans of utilising silver to a greater extent for currency purposes."

We believe, in view of the above extracts, that we are justified in coming to the conclusion that, whether or no Mr. Goschen believes in the practicability of establishing a fixed ratio between gold and silver, he at any rate considers the silver question to be one of great importance, and is anxious that measures should be taken to utilise silver to a greater extent for purposes of currency.

Mr. Gibbs has entirely altered his opinion since 1878: is now of opinion that the establishment of a fixed ratio is not merely practicable, but in itself highly desirable; and for some considerable period has himself been President of the Bi-metallic League. We are at a loss to understand how the change in Mr. Gibbs' views since 1878, which his writings on the subject have rendered matter of much notoriety, should, as would seem to be the case, have escaped the knowledge of the Lords Commissioners of Her Majesty's Treasury.

Question of gain or loss to India from the fall in the rate of exchange.

11. With regard to the question whether India has obtained any such advantages from the fall in exchange as wholly or in any part to compensate her for the undoubted injury which the fall inflicts, and specially for the loss on the gold remittances of the Government of India, we would observe that this is a matter on which opinion is by no means unanimous. The fall in the rate of exchange has coincided in point of time with a large development of Indian trade and a steady increase of Indian revenue; but many authorities hold that this growth of trade and revenue is due to a succession of several good harvests, to the increased energy shown of late years in the construction of railways in India, to the cheapening of the cost of sea transport, and to the opening of the Suez Canal rather than to the fall in exchange. The question has been recently examined in a paper entitled "Indian Trade and Exchange," prepared by the Assistant Secretary in our Financial Department, copies of which have been forwarded for your Lordship's information; and the considerations therein set forth materially assist in enabling a judgment to be formed upon this important matter. It is beyond question that the instability in the relative value of gold and silver discourages the investment of capital in India; and the higher rate of interest which we should have to pay for silver loans forces us to borrow in gold, and to accept the risk of a still further appreciation of that metal. The variations in exchange introduce great uncertainty in that large class of commercial transactions in which the element of time is involved. The fall in silver, by throwing unexpectedly a heavy burden on our finances, has more than once compelled us to defer the construction of public works intended for the protection of the country against famine, and has led to regrettable and wasteful fluctuations in our public works policy. These are evils of great magnitude; and if we take into consideration also the direct accumulating increase to the public expenditure due to the fall in exchange, it is, to say the least, difficult to contend that India as a whole may have gained as much as she has lost. It has no doubt been argued that the fall in exchange by encouraging Indian exports has given a stimulus to industries in which India competes with countries that have a gold standard; but, apart from the results of recent inquiry into this part of the subject which we have above alluded to, we have been unable to discover that the silver prices of Indian exports, or Indian commodities generally, have risen since the fall in the rate of exchange, and there are good grounds for believing that the effect of the change that of late years

has taken place in the relative value of silver and gold has been to lower gold prices and not to raise silver prices. Apart from this aspect of the question, it further appears to us that the Lords Commissioners of Her Majesty's Treasury have failed to notice that those persons who are of opinion that India has gained by the fall in exchange hold, as an essential part of the same opinion that England and all other countries with a gold standard have lost in an exactly equal degree. They argue that the rupture of the old ratio of 1 to 15½ between the two metals has led to a reduced supply of metallic money to countries with a gold standard, and an increased supply, of an exactly equivalent amount, to countries with a silver standard; and if the increased supply has been a gain to the silver countries, it follows that the reduced supply must have proved injurious to countries with a gold standard by causing a general fall in the prices of commodities.

12. The Lords Commissioners quote, with seeming approval, the opinion of Mr. Barbour, our Financial Secretary, on the question of the gain or loss to India; but we observe that they have omitted to refer to the passages in which Mr. Barbour states that the gain of the silver countries is balanced by a corresponding degree of loss on the part of the gold countries. The following extracts from the preface to the book quoted from show what Mr. Barbour's opinion is on this point:—

"This fall in prices has been aggravated in countries using the gold standard, and checked, or altogether obviated, in countries using the silver standard, by the partial demonetisation of silver. In so far as this has been the case, the silver countries have unquestionably gained, while the gold countries have lost." * * * * *

"Every fall in the gold price of silver will be followed by a corresponding decline in the gold prices of commodities, by increased disinclination of capitalists in London to invest money in India, by a reduction of profits and a general increase of the burden of obligation already contracted in England."

These passages make it clear that the theory of gain to India by the fall in exchange is based on the belief that countries with a gold standard have lost in an equal degree; and that, in short, the gain of the silver countries arises from a species of protection against countries with a gold standard. It is not possible to accept one-half of the theory and to reject the other. If the silver countries have gained by an increase of the supply of metallic money, the gold countries must have lost by an exactly equivalent reduction in the supply. We desire to lay special stress on this aspect of the case, because we find it stated that "England would not herself take the initiative in making changes which would have the effect of disturbing a monetary system under which she has enjoyed much prosperity," and no notice is taken of the fact that any special gain to India from the low exchange must have been attended with corresponding loss to England. In connection with the question of the prosperity which England may have enjoyed in former years under the gold standard, it should not be overlooked that up to 1873 England enjoyed the benefits of a comparatively stable ratio between her gold standard and the silver standard of other countries, and that since the wide departure from the old ratio occurred, the progress and prosperity of England have suffered a decided check. Without attempting to define the specific causes which have been in operation, we may observe that the prices of commodities have fallen very largely in England in recent years.

13. Even if, for the sake of argument, it be admitted that India, as a whole, has gained as much as she has lost by the fall in exchange, we are still of opinion that a change is imperatively required in the interests of the British Government in India. If the gain has just balanced the loss owing to the fall in exchange, we may reasonably conclude that in case of a rise in exchange, the loss would not on the whole exceed the gain, while the financial relief, and consequent political advantage, to our Government would be incalculable. This view of the matter was referred to by Sir Louis Mallet at the Conference of 1881 in the following words:—

"Although we may, no doubt, look forward in the future to some rearrangement of taxation when the depreciation of the coinage has produced its effect in a general rise of prices, and particularly in that of labour, we must wait a long time for that result; and, meanwhile, it would be impossible without serious political danger to propose new taxes based on considerations which the mass of the people would not be able to understand.

"But it is not only the actual loss which we have to think about; it is the absolute uncertainty which hangs about the future, and which prevents any serious or accurate calculation of the revenue and resources of Government."

These words have a special bearing on our present financial position. The recent renewal of instability, followed by a heavy fall in exchange, and maintained up to the present time, has rendered the most careful calculations we can make valueless. We have already imposed unpopular taxation, and we see before us the possibility of being compelled to have recourse to the imposition of further taxes, alike unpopular and injurious to the well-being of the community. The future is, if possible, even less assured than it was when Sir Louis Mallet spoke. Moreover, the rise in prices, owing to the depreciation of the silver currency, to which Sir Louis Mallet looked forward, has not taken place; the alteration in relative gold and silver prices, which must necessarily follow the alteration of the exchange, has taken the form of a fall in gold, and not of a rise in silver prices. We cannot, therefore, count, within any reasonable time, on such a growth of revenue as will enable us to meet the burden thrown on our finances in recent years by the fall in exchange.

14. Putting aside, however, all matters of minor importance, we desire to observe that, in our judgment, the question of the establishment of a stable ratio between gold and silver must be decided on broader grounds than the gain or loss of a single country, and that it is a question of world-wide importance, the interest of England in securing a permanent settlement being no less than that in India. So far as regards the momentary standard, no country is, or can be, independent of the action of other countries. Apart from the dislocation of trade and industry caused by variations in the rate of exchange between two standards not linked by a legal ratio, each country is at the mercy of others, which, by adopting or discarding the gold or silver standard, can seriously prejudice the interests of that country which makes no change in the standard. England has made no change in the standard since 1816; but the result of the more extended use of gold by foreign countries is certainly not less serious in its effect on the industries of England and the interests of the English people than in its effect on French and American industries and interests. The Government of India, like that of England, has made no change in the standard; yet the action of foreign nations has placed our finances in those perpetually recurring difficulties which are set forth in our Despatch of 2nd February last, and threatens them with even greater disasters in the immediate future. The question of the monetary standard appears, therefore, to us to be pre-eminently one for settlement by international agreement; in no other way can a satisfactory or permanent settlement be effected; and we trust that Her Majesty's Government will abandon their attitude of absolute isolation—an attitude which, we venture to think, is both indefensible in theory, and in practice fraught with danger both to England and to India.

Omission to answer the arguments employed against the proposals of 1878.

15. In 1878 the Government of Lord Lytton proposed that the coinage of rupees should be restricted, by means of a seigniorage, in such manner as to raise the value of the rupee from 1s. 7d., the market rate of the day, to 2s.; and these proposals contemplated ultimately the introduction into India of a gold standard. The Lord Commissioners of Her Majesty's Treasury refer to this proposal, and express regret that in the Despatch of 2nd February last the Government of India has not replied to the arguments which led to its rejection, nor shown that it has now some scheme in view which is not open to similar objections. Great importance is evidently attached to this point, as in Mr. Fowler's letter of 31st of May the arguments used against the proposals of 1878 are repeated, and it is added that "the Lords Commissioners find no reason stated in the Despatch of the Government of India in the present year which induces them to dissent from the conclusions thus set forth on the authority of Sir Stafford Northcote as to the results of any attempt to artificially enhance the gold price of silver." We confess to having read these remarks with surprise, as, for the reasons which follow, we can perceive no analogy whatever between the proposals of 1878 and those which we recently put forward.

16. The proposals made by the Government of India in 1878 involved the restriction of the coinage of rupees, a measure which, in our recent proposals, we have not advocated. The proposals of 1878 aimed at establishing a fixed ratio between gold and the coined rupee, which is a totally different matter from the establishment of a fixed ratio between gold and silver. The Government of 1878 proposed to establish between gold and the rupee the ratio of ten rupees equal to one pound sterling, while the proposal contained in our Despatch of 2nd February last merely

involved the establishment of a stable ratio between gold and silver, and left the question of what that ratio should be for future discussion. The proposals of 1878 could have been carried out by legislation in India, and were entirely independent of international agreement; the essential feature of our present proposals is their dependence on international agreement. The proposals of 1878 would not, as seems to be supposed, have raised the gold value of silver, but would, on the contrary, have tended very materially to reduce it. The arguments used against the measures advocated in 1878 have, therefore, no bearing on our recent proposals; and, as those measures lay outside the scope of the recommendations contained in our Despatch of February 2nd, we admit our inability to perceive why, in that Despatch, we should have been at the pain of answering them. The proposals contained in our Despatch of 2nd February did not necessarily involve the raising of the gold value of silver to the old ratio of 15½ to 1. It was our intention that the question of the precise ratio to be adopted should be left for future discussion, and for settlement after full consideration of all the interests involved, and after ascertainment of the view of the principal nations interested in the matter. Even if a Conference should have decided on the adoption of the old ratio of 15½ to 1, we cannot admit that the change could more accurately be described as one for raising the value of silver rather than as one for lowering the value of gold. The essential end to which our recent proposals were directed was the establishment of a stable ratio between silver and gold; and even if a higher ratio than the market ratio of the day had been adopted, the procedure which we advocate would have had as much effect in lowering gold as in raising silver. The scheme of 1878, on the other hand, would have materially lowered the value of silver, and must ultimately have had the effect of raising the value of gold by increasing the demand for it. We fail, as we have said, to perceive anything in common between the two proposals; and we conceive it unnecessary to remark further on this portion of the question.

Possibility of relieving the finances by reduction of expenditure.

17. In paragraph 15 of Mr. Fowler's letter our attention is directed to the importance of the reduction of expenditure, and it is added that the principal element which has determined the unfavourable condition of Indian finance, and which has conduced to our difficulties more obviously and certainly than the fall in the price of silver, is the alarming growth of expenditure. The general question of the growth of expenditure on the civil administration of India was dealt with very fully in the Despatch from Lord Ripon's Government, No. 233, dated 24th August 1883, and in the Minute by Sir Evelyn Baring, which accompanied, as well as in other correspondence which took place about the same time, and which was published as a Parliamentary blue book in August 1885. We can add nothing to what is contained in the correspondence in question beyond remarking that our financial difficulties since that date have forced us to scrutinise very narrowly all proposals for incurring additional expenditure, and that we have been compelled to put aside many valuable reforms simply because we could not find the means to carry them out. We do not know to what facts the Lords Commissioners of Her Majesty's Treasury more particularly desire to draw attention when they speak of the alarming growth of expenditure. The fall in silver has no doubt added largely to expenditure on account of exchange, and we have been obliged to incur expenditure in the construction of famine railways, which do not, for the present at any rate, return a profit sufficient to cover interest on capital. The same remarks hold good in regard to the expenditure on frontier railways and coast defences, while the events that have occurred in recent years beyond the north-west frontier have compelled us to increase the army, both European and native. Her Majesty's Government, we believe, concur with the Government of India in the necessity of measures calculated to minimise the risk of such loss of life as occurred in the Madras famine, and to guard against external attack on the north-west frontier of India. So long as the adequate protection of India against the consequences of war, and famine is an essential portion of the policy of Her Majesty's Government, it is premature to object to the expenditure which the attainment of these ends necessarily for a limited time involves.

18. With the exception of the expenditure referred to in the preceding paragraph, which was incurred deliberately and with a full knowledge of the burden it would impose on the country, and which we should gladly have avoided

if we could safely have done so, we are not aware of any great growth of expenditure in recent years. The measures taken in 1881 to provide an insurance against the financial effects of famine have, no doubt, added nominally 1,500,000*l.* (conventional sterling) to the expenditure; but this was, as those conversant with Indian finance are aware, a measure of economy, and this item of 1,500,000*l.* is of the nature of a reserve or insurance fund. Possibly the fact may have been overlooked that the Government of India is now a very large railway proprietor, and that the opening of new railways necessarily involves an addition to the yearly expenditure of the total amount of the working expenses of the railways. This expenditure cannot, however, be avoided; it brings in corresponding revenue, and can in no sense be treated as an addition to the cost of Government properly so-called. The danger of misunderstanding arising from this cause was alluded to in our Despatch No. 331, dated 1st December 1885, in the following terms: "The rapid increase and great complexity of the railway transactions make it very inconvenient to embody them in finance accounts, and the apparent increase of revenue at the disposal of Government as new lines are opened and corresponding apparent increase of cost of governing the country give rise to mistaken idea of the increasing income and extravagance of the Government." But whatever the origin of the remarks regarding the growth of expenditure may be, we must be allowed, with all deference, to maintain that we have by no means been forgetful of the relief to the finances which can be obtained by reduction of expenditure; the fall in the gold value of silver has more than once led to reductions of expenditure, which have caused serious administrative inconvenience; and we are at the present time engaged in making every reduction which is reasonably or safely practicable, though there is no hope that any economies we may be able to effect will do more than cover a fraction of the additional burden imposed on India by the recent fall in exchange.

19. In order that there may be no room for misunderstanding as to the serious effect which the fall in exchange has had on the course of Indian administration, and of the repeated efforts which have been made to meet the additional expenditure therein involved by reduction of expenditure, we will briefly review the facts of the last 10 years. In the financial statement for 1876-77 Sir William Muir remarked as follows:—

"The sudden depreciation of silver, and the consequent enhancement of charge to the Government of India in laying down yearly the sum required in England of about fifteen millions sterling, without doubt cast a grave shadow on the future. In truth, it may be said that the danger, from whatever point of view considered, is the gravest which has yet threatened the finances of India. War, famine, and drought have often inflicted losses on the exchequer far greater than the charge which threatens us in the present year. But such calamities pass away: the loss is known and limited; and when it has been provided for, the finances again stand on sure and stable ground. This is not the case with the present cause of anxiety. Its immediate effects are serious enough, as has already been shown. But that which adds significance to it is, that the end cannot be seen; the future is involved in uncertainty." As a consequence of the position in which the Government found itself owing to the fall in exchange, measures were taken in July 1876 for the effective curtailment of expenditure on extraordinary public works, and at the same time all outlay of public money on the ordinary civil administration was stopped "which is not absolutely necessary, or to which the Government is not committed, or the discontinuance of which will not cost disproportionate loss and waste."

20. In November 1878 measures were again taken "for the reduction of the ordinary expenditure of the country within the narrowest limits"; but these measures were based on the probability of heavy war expenditure, as well as on the fall in exchange. The orders given in November 1878 were followed up in May 1879 with equally stringent orders for still further reduction of expenditure in all branches of the administration. The contracts with provincial Governments were temporarily set aside, and contributions obtained from them to help to tide the Government of India over its immediate difficulties. The result of the measures taken involved a reduction of 758,000*l.* in ordinary expenditure, as well as the reduction of productive public works expenditure by 1,000,000*l.* yearly, although the estimated expenditure of 1879-80 was already 1,000,000*l.* below the average expenditure of the two preceding years.

In June of the same year the following language was used:—"Rigid economy in every branch of the public service is in present circumstances the policy which must

"be followed." To quote again the words of the resolution of the 1st May:—

"Unless positive necessity exists, no improvements in administration, however desirable, must be undertaken if they involve increased charges; no fresh establishments must be entertained; no new offices must be created; no new works, which it is possible to postpone, must be commenced.

"It is through this policy of retrenchment and economy that the necessity for fresh taxation has for the present been avoided; and if the fall in the value of silver in relation to gold should further increase, strict adherence to that policy will be more than ever essential."

The language used by Lord Lytton's Government in their Despatch No. 138, dated 22nd May 1879, shows how great must have been the pressure which compelled them to have recourse to such reductions:—

"We do not propose in this Despatch to discuss the circumstances which have rendered it necessary to undertake these reductions in the expenditure on public works in India. The result will undoubtedly be that the material progress of the country will be seriously retarded; and we in no way disguise from ourselves the injury which India will sustain, or the discredit which will be entailed on the Government, by even the temporary abandonment of a policy which we are satisfied is essentially wise, and which in spite of many errors has been on the whole attended with eminent success. The measures which we now take with so much regret have been forced upon us by circumstances over which we have no control, and for which our Government is in no degree responsible."

21. From 1879-80 the rate of exchange remained nearly constant for some years, the average rate obtained for home remittances having been as follows:—

			d.
1879-80	-	-	19-96
1870-81	-	-	19-96
1881-82	-	-	19-89

The surplus revenue, which was found to exist in the beginning of 1882-83, was used, not for the increase of expenditure, but for the reduction of taxation, including the removal of the general import duties.

After 1881-82 the course of exchange was steadily downwards, and in 1883 the question of reduction of expenditure having been brought before, and impressed upon, the Government of India by the Secretary of State for India in Council, the matter was exhaustively considered, as will be seen from the correspondence referred to in paragraph 17 of this Despatch.

In 1885 stringent measures were taken for the reduction of expenditure in consequence of the probability of a war with Russia; and, in order to meet the cost of military preparations, reductions were effected in the sanctioned expenditure of 1885-86 to the extent of over 1,500,000*l.* (conventional sterling). As regards the current year, we may observe that at the time of framing the estimates our financial difficulties were seen to be so great that every effort was made to keep down expenditure, and the extreme measure was adopted of withdrawing the sum of 400,000*l.* from Local Governments, and consequently of reducing the possible provincial expenditure by that amount. In February 1886 a Committee was appointed with the special object of effecting reductions of expenditure, and is at present earnestly prosecuting inquiries directed to this end. The language used in the orders appointing the Committee indicate the anxiety with which we have sought economy in the hope of avoiding taxation.

"The circumstances in which the Government now finds itself placed compel it to examine with renewed and anxious attention the possibilities of such an effective decrease in its expenditure as shall in a sensible degree contribute to relieve it of the financial embarrassments with which it is threatened. The uncertainty which prevails regarding the future relative value of gold and silver compels the Government to contract, so far as is possible, expenditure which in other circumstances may have been desirable or necessary, but which at present it can no longer maintain."

22. The sketch which has been given of the financial history of the last ten years is sufficient to show that the Government of India has been very far from unmindful of the relief to the finances which may be obtained by economy and reduction of expenditure; it demonstrates, on the contrary, that such relief has frequently been secured at the cost of great detriment to the administration. We are at present again seeking to effect all possible economies in the cost of civil administration, and we hope in this way to secure an improvement to the extent of at least 500,000*l.*

yearly. How insufficient this relief may prove in comparison with the burden thrown on the finances by the fall in exchange will be seen from the fact that, though the rate of exchange for the estimates of 1886-87 was taken at only 1*s.* 6*d.* per rupee, we have at present to contemplate the possibility of taking a rate as low as 1*s.* 4*d.* per rupee in the estimates of 1887-88—a fall which would impose an additional yearly burden on our revenues of more than 2,000,000*l.* (conventional sterling).

Looking to the facts which we have stated, we are compelled to arrive at the conclusion which admits, in truth, of little dispute, that further reduction of expenditure is unlikely to give us financial relief in any degree commensurate with the magnitude of our difficulties; and that the contention that the alarming growth of expenditure in late years is the principal element in the unfavourable condition of Indian finances will not stand the test of examination.

Nature of the remedy proposed.

23. With regard to the complaint that we have not definitely indicated the nature of the international agreement which should supply the solution of the silver question, we desire to observe that it appeared to us that we stated with sufficient plainness that the end to be aimed at was a stable ratio between gold and silver, and that the means for the attainment of this end was an international agreement between the countries interested in the question. We did not specify the exact ratio which we wished to see established, nor the precise nature of the agreement, because we felt that on both these points it would be necessary to ascertain and take into account the views of foreign Powers, and that any attempt on our part to lay down the exact terms of the settlement at the outset might have a prejudicial effect on the negotiations. If Her Majesty's Government had been willing, under any circumstances, to recommend the opening of negotiations, there would have been no difficulty in obtaining a more definite expression of our views by telegram. Your Lordship will, moreover, not have forgotten that on May 29th of the present year, while we were still awaiting the reply of the Lords of the Treasury, we submitted specific proposals, which were only not laid before the Lords of the Treasury because their letter was received by your Lordship's predecessor very shortly after the recommendations we refer to reached him. What we consider essential in the interests of the finances of British India is the establishment of stability in the relative value of gold and silver, and the removal of the danger which hangs over the silver market from the existence of large quantities of overvalued silver money in the currencies of France, the United States, and other countries. For the attainment of these ends, we propose generally the utilisation of silver as currency to a greater extent than is the case at present, as well as an international agreement for the free coinage of silver, and the making of both gold and silver coin a legal tender at a fixed ratio by a group of nations possessed of a metallic currency of sufficient extent to maintain that ratio permanently. The question of the ratio to be established is one which must be decided by the nations which undertake to coin both gold and silver freely, and it should be a ratio not lower than the average market ratio of recent years, and not higher than the former French ratio of 1 to 15½. So great is the importance which we attach to stability of relative value, that we do not consider that there would be sufficient grounds for objecting in the interests of India to any ratio, within the limits above indicated, which might be approved by the other nations concerned; and, on behalf of India, we would be willing to undertake either to maintain the present silver standard, or to coin both silver and gold for all comers at the fixed ratio. It does not appear that any plainer expression of our views, or any proposals of a more specific nature, could be expected, or should be required, at the present stage.

24. In conclusion, we desire again to express our conviction of the importance, in the interests of British rule in India, of securing a speedy and final settlement of the silver question. In our Despatch of 2nd February last we stated in the clearest terms, but not, as we consider, more strongly than the occasion required, the nature and extent of the difficulties and dangers to which India is exposed in the present state of the silver question, and we need not repeat our observations. The immediate cause of future disturbance which we specially took into consideration at that time was the possibility of the repeal of the Bland Act by America. Since the date of our Despatch, although there is every prospect that America will, for the present at least, continue the coinage of silver, the rate of exchange has

fallen $1\frac{3}{4}$ d. per rupee. The additional burden thrown on our finances by this fall of $1\frac{3}{4}$ d. in the gold value of the rupee, after all allowance made for any possible set-off, amounts to at least 1,750,000*l.* (conventional sterling) yearly, and it is quite possible that the repeal of the Bland Act by America might increase the burden by an equal amount. We cannot hope to cover more than a fraction of the amount already added to our expenditure through the recent fall in silver by any economies in the cost of the administration which we may be able to effect. Even though the measures which we are now carrying out for the defence of the country against war and famine should, in view of our pressing financial difficulties, be curtailed, further taxation appears at present to be inevitable; and when we have again established equilibrium, there is no prospect that the settlement will be final, or even reasonably permanent. A rise in the rate of exchange may prove that unpopular measures of taxation have been undertaken unnecessarily; a fall may force us to impose further taxation. Meanwhile the pressure of our present difficulties is

compelling us to use resources which we relied upon as a reserve to meet the cost of possible war or famine. Above all, our finances will still remain subject to the special uncertainty due to the unsettled condition of the American currency. Your Lordship is aware that a powerful party in the United States of America presses for the stoppage of the coinage of silver. If that course should be adopted in the immediate future our financial difficulties threaten to be greater than any which the Government of India has hitherto experienced. We do not therefore hesitate emphatically to repeat that, from the point of view of Indian finance, the position has become intolerable.

We have, &c.

(Signed)

DUFFERIN.
F. S. ROBERTS.
C. P. ILBERT.
S. C. BAYLEY
T. C. HOPE.
A. COLVIN,
G. CHESNEY.

ANALYSIS OF EVIDENCE.

(Names of Witnesses arranged in Alphabetical Order.)

PROFESSOR ROBERTS AUSTEN, F.R.S. :

Is chemist to the Royal Mint, 1198.

Puts in a paper on the subject of the cost of producing silver, 1200, 1201.

Different methods of obtaining silver, 1202-1204; by the refining of native gold, 1205-1211; by the desilverisation of lead, 1212-1233; by the desilverisation of copper, 1234-1247; from silver ore, 1248-1274.

General conclusion as to mean cost of production by the above methods, 1275-80, 1326.

Explains what is included in cost of production, 1281-1300.

Notifies large difference between cost of production and the market price of the commodity, 1301-1316.

Observations on amount of production of silver, 1323-1325, 1332, 1333.

Possibility of new discoveries in the future, 1318-1320.

Will undertake a similar inquiry into the cost of producing gold, 1327-1331.

MR. D. M. BARBOUR, C.S.I. :

Information as to hoarding in India, 1097-1101, 1154-1160, 1163-1176, 1183-1197.

The precious metals are hoarded in the form of both bullion, coin, and ornaments, 1099-1101.

Net imports of gold into India since 1835, 1102-1112.

Amount of silver hoarded probably exceeds amount of gold, 1113-1116, 1196.

Total amount hoarded, 1102, 1117-1121.

Causes which are likely to bring out hoards, 1124-1129, 1135, 1149-1153, 1155.

Consumption of gold in India for various purposes, 1108, 1109, 1130-1134.

Illustrations of capacity of the people for absorbing money, 1136-1141, 1145-1148, 1190-1194.

Opinion as to probability of a diminution in tendency to hoard, 1142-1163.

Probable effect on value of precious metals of a cessation in hoarding, 1143, 1144.

Alteration in purchasing power of silver in India, 1179-1182.

Little alteration in price of labour in India in recent years, 1161, 1162.

Diagram showing oscillations in prices of silver and of commodities since 1860, 1177.

MR. ROBERT BARCLAY :

Is engaged in the export trade from England to India and other silver-using countries, 2230-2235.

Trade has suffered from fluctuations in exchange, 2236, 2369.

Merchants generally able to protect themselves against loss if all parties to contracts fulfil their obligations, 2237-2245, 2279; but business is necessarily checked by the introduction of a speculative element, 2240, 2245, 2275-2278, 2369, 2373-2379.

Losses arising through failure of manufacturer to keep his contract, coupled with concurrent alteration in exchange, 2261-2270, 2284-2285; though intrinsically insignificant, become important, owing to small margin of profit with which business is conducted, 2271-2274.

Silver prices in the East have a tendency to rule the gold prices here, 2245-2260, 2349, 2362; and have been little affected by the disturbance in values in Europe, 2245, 2354, 2419-2421, 2458, 2459.

Advantage of falling exchange to the Indian merchant and manufacturer, 2287-2299, 2305; growth of Indian cotton manufacture and falling off of certain branches in England, 2301-2304, 2319-2334.

Advantages to India of trading with silver-using countries, 2306-2319, 2357-2368.

Stimulus to Indian exports of wheat, 2335-2344, 2371, 2372.

Extent to which the English and Indian export trades are respectively affected by fall in exchange, 2369-2370, 2395-2401.

Manner in which exchange operates on international trade, 2402-2418, 2460-2465, 2486-2496.

Advantage and disadvantage to the two countries generally of exchange fluctuations, 2419-2457, 2466-2494.

Causes of appreciation of gold or fall of gold prices, 2349-2353.

Is in favour of adopting a fixed ratio between the two metals, 2355-2356, 2477.

Objections to introduction of a gold standard in India, 2380-2386.

Effects of a further fall in silver, 2387-2394.

MR. J. W. BIRCH :

Extension of banking expedients during the last 20 years, 1336-1340. Possibilities of further increase, 1341, 1344-1346.

Effect of telegraphic transfers, 1342, 1343.

Estimates of circulation and of stock of gold in the United Kingdom, 1348, 1362-1365.

Light gold and *li*. notes, 1395-1399.

Sources from which Italian demand for gold was met, 1349-1353. Similar information with regard to Germany, 1354-1361. South America, Portugal, &c., 1368-1370. Hoarding in France, 1354-1360.

Sources from which gold is drawn through a rise in the rate of interest, 1366-1368.

Amount of gold coin melted down for industrial purposes, 1371.

Stock of gold held by Bank of France, 1379-1382.

Currency in Spain, 1386-1394, 1400, 1401.

Puts in certain statistics as to circulation in France, Germany, Belgium, Italy, and Switzerland, 1378.

MR. J. K. BYTHELL :

Is a Manchester merchant, engaged chiefly in the import trade from India, 1897-1899.

Mode in which the export and import trade with the East is financed, 1900-1912.

General effect on trade of the uncertainty in exchange and extent of the risk imposed upon the several parties concerned, 1907-1931.

Alleged stimulus to export trade of India owing to fall in exchange, 1932-2008, 2072-2165, 2185-2190.

Advantages to the Indian producer, 1933-1944, 1947, 2082-2165, 2184.

Causes of fall in gold prices, 1933, 1944, 1945, 1950, 2170. Difficulties of the Government of India have been exaggerated, 2009-2012, 2026-2046, 2066-2071.

Real extent of the loss sustained by the Government, 2013-2025, 2040-2042, 2047-2059.

Borrowing power of the Government as affected by exchange, 2019-2025.

Effects of a fixed ratio between gold and silver, 2062-2065, 2166-2169.

MR. H. H. GIBBS :

Is a Director of the Bank of England, and engaged in trade with silver-using countries, 3020-3023. His opinions are not those of the majority of the Court of Directors, 5880.

Present divergence in relative value of gold and silver due to both appreciation of gold and depreciation of silver, 3024, 3025, 3221.

Causes which have led to appreciation of gold and depreciation of silver, 3026, 3027.

Other causes have prevented silver being depreciated in relation to commodities, but those causes have not operated in the case of gold, 3028-3041.

Probable result of a further fall in silver, 3109-3113.

Injurious effect on trade of fluctuations in the values of the precious metals, 3042, 3043, 3098.

The risk arising from uncertainty must be an impediment to trade, and cannot be transferred to other persons without paying for the accommodation, 3045-3049, 3106-3108, 3215, 3216, 3299-3233, 3241-3244, 5791-5803.

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Discouragement to invest in silver-using countries, 3101-3103, 3164-3178, 5847-5861.

In countries with inconvertible paper currency the depreciated paper is the basis of transactions, not the appreciated coin, 3645-3650.

Effects of exchange upon trade and prices, 3114-3137, 3224-3227, 3677-3679, 3687-3714, and on investments in silver countries, 3146-3164, 3218-3220; evils arising from the want of a fixed par of exchange, 3677-3679, 3709-3714, especially in the case of India, 4483-4516.

Disadvantages under which the agricultural interest suffers owing to the existing state of things, 3778-3781.

An appreciating currency is generally unfavourable to trade, 3092-3099.

Evils of low and especially falling prices, 3104-3105, 3238, 3617-3626, 3851, 5816-5818.

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Effect of the rate of interest on the supply of gold, 5328-5352, 5368-5373.

Wages and necessities of life are affected very slowly by changes in the value of the currency, 3076-3079, 3082-3084, 3138, 3139, 3213, 3214, 3743-3745, 4529-4553; except, perhaps, in countries themselves producing the material of the currency, 3085-3089.

A large portion of the existing uncertainty in exchange would be removed if bimetalism were adopted, 3459-3460; explains proposed bimetallic law, 3461, 3462.

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MR. R. GIFFEN:

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MR. H. R. GRENFELL:

Is a director, and has been Governor of the Bank of England, 4171-4173.

Lord Liverpool's views as to the standard of value in England at the time when he wrote, 4174, 4185-4189, 4197, 4198. Meaning of standard of value, 4178.

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Agrees generally with Mr. Gibbs's evidence as to the possibility and expediency of introducing the bimetallic system, 4307.

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Ascribes recent fall in prices to alterations in the standard of value and the contraction of the currency, 4316-4329, 4346-4380, 4476-4482. These alterations due to foreign legislation, 4326-4329, 4444-4446.

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SIR HECTOR HAY:

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MR. DAVID McLEAN:

Is manager of the Hong Kong and Shanghai Banking Corporation, carrying on business with India, China, and Japan, 4986-4989.

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Similar information with regard to the import trade, 5015-5035.

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Effect on the exchange of a cessation of Council Bills, 5130-5140, 5167-5174.

MR. SAMUEL MONTAGU, M.P.:

Banking accommodation in London superior to that in other parts of the world, 1407, 1421, 1433.

But as regards small remittances, and transfer of funds from one part of the country to another, foreign countries offer greater advantages, 1407-1409, 1413-1415, 1422-1425, 1469-1473, 1486-1490, 1515-1520, 1539-1547.

This defect to some extent neutralized by the more common habit of keeping banking accounts here, 1418-1421, 1426-1429, 1539-1543.

Economy of gold currency on the continent as compared with the United Kingdom, 1411-1413, 1422, 1432, 1435-1439.

Possibility of further economy owing to extension of banking accommodation abroad, 1441-1445, 1486-1507, and issue of paper, 1436, 1474, 1478, 1492-1494, 1512-1514, 1557-1559. Issue of 1l. notes, 1436, 1478, 1558, 1559.

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PROFESSOR J. SHIELD NICHOLSON:

Is professor of political economy in the University of Edinburgh, 3877.

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MR. R. H. INGLIS PALGRAVE:

Explains circumstances under which his memorandum for the Commission on the Depression of Trade was prepared, sources from which the information was procured, and the lines of inquiry suggested by it, 1-5.

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GOLD AND SILVER COMMISSION.

FIRST REPORT

OF THE

ROYAL COMMISSION

APPOINTED TO INQUIRE INTO THE

**RECENT CHANGES IN THE RELATIVE VALUES
OF THE PRECIOUS METALS;**

WITH MINUTES OF EVIDENCE AND APPENDICES.

Presented to both Houses of Parliament by Command of Her Majesty.



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1887.

GOLD AND SILVER COMMISSION.

S E C O N D R E P O R T

OF THE

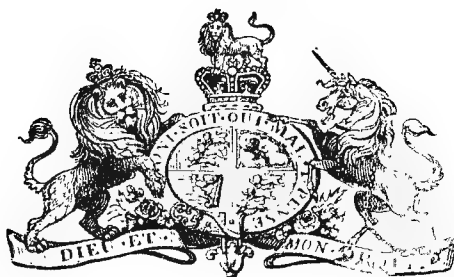
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ROYAL COMMISSIONS.

I.

VICTORIA R.

Victoria, by the Grace of God of the United Kingdom of Great Britain and Ireland Queen, Defender of the Faith.

To Our right trusty and well-beloved Councillor Arthur James Balfour, Our Secretary for Scotland; Our right trusty and well-beloved Councillor Joseph Chamberlain; Our trusty and well-beloved Charles William Fremantle, Esquire, Companion of Our Most Honourable Order of the Bath (commonly called the Honourable Charles William Fremantle); Our trusty and well-beloved Sir John Lubbock, Baronet; Our trusty and well-beloved Sir Thomas Henry Farrer, Baronet; Our trusty and well-beloved James Richard Bullen Smith, Esquire, Companion of Our Most Exalted Order of the Star of India; Our trusty and well-beloved David Miller Barbour, Esquire; Our trusty and well-beloved John William Birch, Esquire; Our trusty and well-beloved Lionel Louis Cohen, Esquire; Our trusty and well-beloved Leonard Henry Courtney, Esquire; and Our trusty and well-beloved William Henry Houldsworth, Esquire, greeting.

Whereas it has been represented unto Us that it is expedient that a Commission should forthwith issue to inquire into the recent changes in the relative values of the precious metals shown by the decrease in the gold price of silver.

Now know ye, that We, reposing great trust and confidence in your knowledge and ability, do by these Presents authorise and appoint you the said Arthur James Balfour; Joseph Chamberlain; Charles William Fremantle (commonly called the Honourable Charles William Fremantle); Sir John Lubbock; Sir Thomas Henry Farrer; James Richard Bullen Smith; David Miller Barbour; John William Birch; Lionel Louis Cohen; Leonard Henry Courtney; and William Henry Houldsworth to be Our Commissioners for the purposes of the said inquiry.

And We do hereby enjoin you, or any five or more of you, to investigate the causes of the said recent changes in the relative values of the precious metals, and especially to inquire whether the said changes are due—

- (1.) To the depreciation of silver; or
- (2.) To the appreciation of gold; or
- (3.) To both these causes.

If you should find the said changes to be due to the depreciation of silver, you will then inquire whether such depreciation arises from increase of supply or diminution of demand, or from both, and you will endeavour to ascertain the proportions in which these different causes have operated.

If you should find the changes to be due to the appreciation of gold, you will inquire whether the appreciation arises from the diminution of supply or from increase of demand, or from both, and you will endeavour to ascertain the proportions in which these different causes have operated.

Having regard to these different causes and their respective effects, you will next inquire what has been the bearing of the changes in the value of the precious metals on the following matters of practical business:—

I. India :

(a.) Upon the remittances of the Government of India :

(1.) For payments on old or fixed contracts.

(2.) For payments on new or current contracts.

(b.) Upon the persons in India who have to make remittances home in gold.

(c.) Upon the producers, merchants, and taxpayers of India.

(d.) Upon merchants and manufacturers at home who trade with India.

II. *The United Kingdom :*

- (a.) Upon the trade of the United Kingdom with other silver-using countries.
- (b.) Upon the foreign trade of the United Kingdom generally.
- (c.) Upon the internal trade and industry of the United Kingdom.

If you should come to the conclusion that the aforesaid changes in the values of the precious metals are causing permanent or important evils or inconveniences to any of the interests above referred to, it will be your duty then to inquire whether it is possible to suggest any remedies within the power of the Legislature or the Government, by itself or in concert with other Powers, which would be effectual in removing or palliating the evils or inconveniences thus caused without injustice to other interests, and without causing other evils or inconveniences equally great.

Lastly, if you are of opinion that this is possible, you will state the precise form which such remedies should take, and the manner in which they should be applied.

And for the better effecting the purposes of this Our Commission, We do by these Presents give and grant unto you, or any five or more of you, full power to call before you such persons as you shall judge likely to afford you any information upon the subject of this Our Commission ; and also to call for, have access to, and examine all such books, documents, registers, and records as may afford you the fullest information on the subject ; and to inquire of and concerning the premises by all other lawful ways and means whatsoever.

And We do further by these Presents authorise and empower you, or any five or more of you, to visit and personally inspect such places in Our United Kingdom as you may deem expedient for the more effectual carrying out of the purposes aforesaid.

And We do by these Presents will and ordain that this Our Commission shall continue in full force and virtue, and that you, Our said Commissioners, or any five or more of you, may from time to time proceed in the execution thereof, and of every matter and thing therein contained, although the same be not continued from time to time by adjournment.

And We do further ordain that you, or any five or more of you, have liberty to report your proceedings under this Our Commission from time to time, if you shall judge it expedient so to do.

And Our further will and pleasure is that you do, with as little delay as possible, report to Us, under your hands and seals, or under the hands and seals of any five or more of you, your opinion upon the several matters herein submitted for your consideration.

And for the purpose of aiding you in such matters, We hereby appoint Our trusty and well-beloved George Herbert Murray, Esquire, to be Secretary to this Our Commission.

Given at Our Court at St. James's, the Twentieth day of September one thousand eight hundred and eighty-six, in the Fiftieth year of Our Reign.

By Her Majesty's Command.

HENRY MATTHEWS.

II.

VICTORIA R.

Victoria, by the Grace of God of the United Kingdom of Great Britain and Ireland Queen, Defender of the Faith.

To Our right trusty and well-beloved Councillor Farrer, Baron Herschell; Our right trusty and well-beloved Councillor Joseph Chamberlain; Our right trusty and well-beloved Councillor Sir Louis Mallet, Knight, Companion of Our Most Honourable Order of the Bath; Our right trusty and well-beloved Councillor Arthur James Balfour; Our right trusty and well-beloved Councillor Henry Chaplin; Our trusty and well-beloved Charles William Fremantle, Esquire (commonly called the Honourable Charles William Fremantle), Companion of Our Most Honourable Order of the Bath; Our trusty and well-beloved Sir John Lubbock, Baronet; Our trusty and well-beloved Sir Thomas Henry Farrer, Baronet; Our trusty and well-beloved David Miller Barbour, Esquire, Companion of Our Most Exalted Order of the Star of India; Our trusty and well-beloved John William Birch, Esquire; Our trusty and well-beloved Lionel Louis Cohen, Esquire; Our trusty and well-beloved Leonard Henry Courtney, Esquire; and Our trusty and well-beloved William Henry Houldsworth, Esquire, greeting.

Whereas We did, by Warrant under Our Royal Sign Manual, bearing date the twentieth day of September one thousand eight hundred and eighty-six, authorise and appoint Our right trusty and well-beloved Councillor Arthur James Balfour, Our then Secretary for Scotland, together with the several gentlemen therein mentioned, or any five or more of them, to be Our Commissioners to inquire into the recent changes in the relative values of the precious metals shown by the decrease in the gold price of silver.

Now know ye, that We have revoked and determined, and do by these presents revoke and determine, the said Warrant, and every matter and thing therein contained.

And whereas We have deemed it expedient that a new Commission should issue for the purposes specified in such Warrant of the twentieth day of September one thousand eight hundred and eighty-six.

Further know ye, that We, reposing great trust and confidence in your ability and discretion, have appointed, and do by these Presents nominate, constitute, and appoint, you the said Farrer, Baron Herschell; Joseph Chamberlain; Sir Louis Mallet; Arthur James Balfour; Henry Chaplin; Charles William Fremantle (commonly called the Honourable Charles William Fremantle); Sir John Lubbock; Sir Thomas Henry Farrer; David Miller Barbour; John William Birch; Lionel Louis Cohen; Leonard Henry Courtney; and William Henry Houldsworth to be Our Commissioners for the purposes of the said inquiry.

And We do hereby enjoin you, or any five or more of you, to investigate the causes of the said recent changes in the relative values of the precious metals, and especially to inquire whether the said changes are due—

- (1.) To the depreciation of silver; or
- (2.) To the appreciation of gold; or
- (3.) To both these causes.

If you should find the said changes to be due to the depreciation of silver, you will then inquire whether such depreciation arises from increase of supply or diminution of demand, or from both, and you will endeavour to ascertain the proportions in which these different causes have operated.

If you should find the changes to be due to the appreciation of gold, you will inquire whether the appreciation arises from the diminution of supply or from increase of demand, or from both, and you will endeavour to ascertain the proportions in which these different causes have operated.

Having regard to these different causes and their respective effects, you will next inquire what has been the bearing of the changes in the value of the precious metals on the following matters of practical business :—

I. *India :*

(a.) Upon the remittances of the Government of India :

(1.) For payments on old or fixed contracts.

(2.) For payments on new or current contracts.

(b.) Upon the persons in India who have to make remittances home in gold.

(c.) Upon the producers, merchants, and taxpayers of India.

(d.) Upon merchants and manufacturers at home who trade with India.

II. *The United Kingdom :*

(a.) Upon the trade of the United Kingdom with other silver-using countries.

(b.) Upon the foreign trade of the United Kingdom generally.

(c.) Upon the internal trade and industry of the United Kingdom.

If you should come to the conclusion that the aforesaid changes in the values of the precious metals are causing permanent or important evils or inconveniences to any of the interests above referred to, it will be your duty then to inquire whether it is possible to suggest any remedies within the power of the Legislature or the Government, by itself or in concert with other Powers, which would be effectual in removing or palliating the evils or inconveniences thus caused without injustice to other interests, and without causing other evils or inconveniences equally great.

Lastly, if you are of opinion that this is possible, you will state the precise form which such remedies should take, and the manner in which they should be applied.

And for the better effecting the purposes of this Our Commission, We do by these Presents give and grant unto you, or any five or more of you, full power to call before you such persons as you shall judge likely to afford you any information upon the subject of this Our Commission ; and also to call for, have access to, and examine all such books, documents, registers, and records as may afford you the fullest information on the subject ; and to inquire of and concerning the premises by all other lawful ways and means whatsoever.

And We do further by these Presents authorise and empower you, or any five or more of you, to visit and personally inspect such places in Our United Kingdom as you may deem expedient for the more effectual carrying out of the purposes aforesaid.

And We do by these Presents will and ordain that this Our Commission shall continue in full force and virtue, and that you, Our said Commissioners, or any five or more of you, may from time to time proceed in the execution thereof, and of every matter and thing therein contained, although the same be not continued from time to time by adjournment.

And We do further ordain that you, or any five or more of you, have liberty to report your proceedings under this Our Commission from time to time, if you shall judge it expedient so to do.

And Our further will and pleasure is that you do, with as little delay as possible, report to Us, under your hands and seals, or under the hands and seals of any five or more of you, your opinion upon the several matters herein submitted for your consideration.

And for the purpose of aiding you in such matters, We hereby appoint Our trusty and well-beloved George Herbert Murray, Esquire, to be Secretary to this Our Commission.

Given at Our Court at St. James's, the Sixth day of May one thousand eight hundred and eighty-seven, in the Fiftieth year of Our Reign.

By Her Majesty's Command.

HENRY MATTHEWS.

III.

VICTORIA R,

Victoria, by the Grace of God of the United Kingdom of Great Britain and Ireland Queen, Defender of the Faith.

To Our trusty and well-beloved Samuel Montagu, Esquire, greeting :

Whereas We did, by Warrant under Our Royal Sign Manual, bearing date the sixth day of May one thousand eight hundred and eighty-seven, appoint Our right trusty and well-beloved Councillor, Farrer, Baron Herschell, together with the several gentlemen therein mentioned, or any five or more of them, to be Our Commissioners to inquire into the recent changes in the relative values of the precious metals shown by the decrease in the gold price of silver.

And whereas one of Our Commissioners, so appointed, namely, Lionel Louis Cohen, Esquire, has since deceased.

Now know ye, that We, reposing great confidence in you, do by these Presents appoint you, the said Samuel Montagu, to be one of Our Commissioners for the purpose aforesaid, in the room of the said Lionel Louis Cohen, deceased, in addition to and together with the other Commissioners whom We have already appointed.

Given at Our Court at St. James's, the Twenty-sixth day of July one thousand eight hundred and eighty-seven, in the Fifty-first year of Our Reign.

By Her Majesty's Command.

HENRY MATTHEWS.

NOTE.—The Right Hon. Joseph Chamberlain resigned in September 1887.

GOLD AND SILVER COMMISSION.

SECOND REPORT.

TO THE QUEEN'S MOST EXCELLENT MAJESTY.

MAY IT PLEASE YOUR MAJESTY,

WE, the undersigned Commissioners, appointed to inquire into the recent changes in the relative values of the precious metals, desire humbly to submit to Your Majesty a further report of our proceedings.

We append notes of the evidence which we have taken since the date of our last Report, together with other information bearing upon the subject of our inquiry.

This section of the evidence relates chiefly to the effect upon the trade, industry, and general interests of the United Kingdom of the changes in the relative value of gold and silver.

We shall very shortly proceed to consider our Final Report on the several matters referred to us, and we hope to submit our conclusions at no distant date.

All which we humbly submit for Your Majesty's gracious consideration.

30th January 1888.

HERSCHELL.
LOUIS MALLET.
ARTHUR JAMES BALFOUR.
HENRY CHAPLIN.
C. W. FREMANTLE.
JOHN LUBBOCK.
T. H. FARRER.
W. H. HOULDSWORTH.
D. BARBOUR.
J. W. BIRCH.
LEONARD COURTNEY.
SAMUEL MONTAGU.

GEO. H. MURRAY,
Secretary.

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MINUTES OF EVIDENCE

TAKEN BEFORE THE

ROYAL COMMISSION ON GOLD AND SILVER.

Twenty-fourth Day.

8, Richmond Terrace, Whitehall, S.W.

Friday, 10th June 1887.

PRESENT :

THE RIGHT HON. LORD HERSCHELL, the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.

MR. J. W. BIRCH.

MR. L. COURTNEY, M.P.

MR. C. W. FREMANTLE, C.B.

MR. W. H. HOULDSWORTH, M.P.

SIR LOUIS MALLET, C.B.

MR. GEO. H. MURRAY, *The Secretary.*

Mr. S. WILLIAMSON, M.P., called and examined.

5945. (*The Chairman.*) You have carried on business for many years in Liverpool?—Yes.

5946. Amongst other branches of your business you have large dealings with Chili, I believe?—Yes.

5947. In the importation of wheat from Chili to this country?—In the importation of Chilean produce generally, wheat amongst others, copper, nitrate of soda, and in the shipment of British manufactured goods and others to Chili.

5948. Has your principal business been with Chili?—It was for many years. Latterly, perhaps, our largest business has been with California, where we also have a house.

5949. Chili, as we have heard, is a silver-using country, but with a depreciated paper currency?—Yes, it was really bimetallic in a certain sense, that is to say silver being a product of the country was at their hands, while gold had to be imported, but during the recent war with Peru their metallic money was all drained away and they were left practically with an enforced paper currency. But previous to that, Chili was a silver-using country although they had gold coins with a fixed ratio to silver.

5950. You have considered the question of the effect of the more general adoption of the gold standard, which has taken place in recent years, in lieu of the silver standard?—Yes, I have.

5951. In your opinion has that caused an obstacle to business with silver-using countries?—Yes, I think it has been most hurtful and damaging, injurious to commerce, generally speaking bringing down values, and presenting hindrances to the interchange of commodities.

5952. Will you explain to the Commission how, in your view, that has operated?—Since Germany discarded silver as her money Europe has practically become gold monometallic, but silver has not been

driven out of the world. Foreign nations, South America and the East, still use silver largely, and the difficulties that we foresee, and the injurious consequences that we fear, are to a large extent apprehensions founded on the partial experience of that divorce since 1874 up till now. What we are afraid of is that this tendency to divorce silver from the money of the world will go on unless a remedy is now put to it, and that leads us to believe that very injurious effects will fall upon our manufacturing industries and our trade.

5953. Silver is not divorced from the money of the world; it still is the standard in countries using very large quantities?—Quite so. Up to this point it is a partial divorce only.

5954. You are referring specially to the evils which have arisen in relation to the trade between gold-using and silver-using countries, I understand?—Yes; and while there has been a struggling up till now to interchange commodities, the expansion that we would naturally have expected during recent years has not, according to my view, taken place, and there are those hindrances now existing that any man can easily apprehend. For instance, you would not, under existing monetary laws, think of investing money in a silver-using country, getting your interest paid in rupees or dollars, you would not think of investing in the debentures of a railway company, paying you interest in its silver money; and you would not think of investing in shares in any of these industrial enterprises such as railways, waterworks and so on in silver-using countries, so that we are putting a check upon their development, and the expansion of commerce.

5955. One of the evils, then, to which you refer is the obstacle which it creates to the investment in a silver-using country of capital existing in a gold-using country?—Quite so. That is the principal point

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that I would like to lay stress upon. Of course, besides that, to a merchant transacting business with a silver using country, the fluctuations in exchange are most tantalising. Some may by haphazard make money out of the fluctuations, but as a rule to a prudent merchant they are excessively annoying and injurious.

5956. You think that that inconvenience is to some extent met by the operations of exchange banks, yet they cannot completely obviate the hazardous character of transactions between gold-using and silver-using countries?—In the small silver-using States you cannot arrange ahead for remittances with banks, or at least to a very moderate extent only. The Indian banks have certainly been trying to meet the difficulty, but we know that some of the Indian banks have got into trouble because of it, and are not paying dividends, and I look upon it as an extremely risky business. You make these banks that are now trying to accommodate their customers, exchange speculators, and what English capitalist is to put money into these banks, I should like to know? I think it is a most serious position that you put these Indian banks into. They can buy, of course, ahead to a certain extent, but the tendency is to sell exchange ahead to a larger extent to meet the demands of exporters from this country, and that is rash speculation. We know perfectly well that two or three of the Indian banks have presented very bad accounts recently.

5957. Are you able to arrange ahead in transactions between this country and Chili?—Only to a small extent, and we are obliged to give up giving credit almost entirely now, in Chili. The credit in Chili used to be 6, 7, and 8 months. I grant it was a long credit to give to dealers there, yet that was the course of business. We had interest. We ought to have got and did get interest for the use of our capital, besides the commercial profit on the goods we sold, and *pro tanto* it was an outlet for the employment of British capital. Now we are obliged to curtail those credits, and sell for cash. Three-fourths of our sales are cash sales; that is to say, payable in a month, and for these we can possibly arrange ahead, but we still occasionally make sales at six months' credit, and for those we cannot arrange ahead.

5958. Does that result from the depreciation of silver or from the depreciated paper currency?—It arises from the extreme fluctuations in exchange. We have no basis on which to found exchange.

5959. Yes, but those fluctuations might exist, I suppose, even if silver were steady elsewhere, in a country with an inconvertible paper currency?—I am speaking of the country rather as a silver country. Let us take the dollars as silver dollars. Even suppose Chili were now on a silver basis, we could not sell at six months' credit and know what we were to get back, at the end of that time, if we could not arrange exchange ahead. The fluctuations in the sterling value of silver dollars are now very great.

5960. But supposing a change were made which fixed the value of silver in relation to gold, would that get rid of your exchange difficulty between this country and Chili so long as the latter had an inconvertible paper currency?—No; but it would present an inducement to Chili to resume specie payments. She has got State railways to borrow money on sufficient to enable her to resume specie payments if there was any inducement for her to do it, but there is none. She is just about as well with a paper currency as with a silver currency just now.

5961. Then you think that one effect of a change which produced a fixed relation between silver and gold would be to induce Chili to resume specie payments?—To a large number of countries, Chili as well as other countries, the existing monetary position of silver is an absolute barrier to the resumption of specie payments. I think this is a very serious question well worthy of the consideration of the Commission.

5962. With regard to the counterbalancing advantages which it is suggested arise from the present condition of things, in the exchange between this country and India, what have you to say?—I think

the advantages have been exaggerated. The maximum export of wheat from India has been 6,000,000 of quarters in a year. Of these we have received 3,000,000 of quarters, and I would put the advantage at 15s. a quarter, that is 2,250,000*l.* The Continent and the Mediterranean have taken an equal quantity, making another 2,250,000*l.*; together 4,500,000*l.* But then the whole of that has not been gained by the fall in exchange. For instance, freights have fallen during recent years. Steamer freights have fallen from 55s. a ton down to 20s., which is now pretty much the standard rate from Bombay and Calcutta for wheat. That is exactly 8s. a quarter of saving in freights now as compared with what it was about the year 1880 or 1881. That is 2,400,000*l.*, and practically we have just a net gain through fall in exchange of about 2,000,000*l.* sterling on wheat, to the Indian people, and we know that the cultivation is not increasing much. If they produced about 20,000,000 of quarters we would not get any of it. It is the surplus of a large crop, of which India only exports about one-fifth or one-sixth, and we know that notwithstanding this great gain that we hear so much about, the Indian producers are in a state of penury. When they have to buy clothes to clothe themselves, or other European commodities, they have to pay so much more for them. Then the Indian Government have to provide about 50,000,000 of rupees or thereabouts annually more than they did when the exchange was about 2s. or 2s. 1*d.*, and this implies additional burdens on the people of India.

5963. And you do not think this suggested stimulus or advantage to India has been great?—I think it has been an advantage to a certain extent, because of the land rents being in silver; no doubt the Indian cultivator has gained, that is to say the Indian cultivator has been able to meet the fall in the price of wheat more easily than cultivators in other countries. That may be, but they are a set of poor people, notwithstanding, and the advantage to India as a whole has been very much exaggerated, and the advantage to ourselves has been exaggerated too.

5964. You mean the advantage to ourselves by getting the food cheaper?—Yes, it has been exaggerated, I think. Certainly the shipowners, who have contributed perhaps most largely to the bringing of this cheap wheat, have done it at their own cost; few of their boats are paying expenses.

5965. Then what do you say with regard to the suggested advantage to India, by certain manufacturing industries being stimulated in India?—Yes, that again is a very serious question. By divorcing their silver money from gold and having the Indian mints, the only mints in the world now open for the coinage of silver, if you force large quantities of silver on the London market (supposing that this question is not settled, and that the United States cannot go on, as I am sure the United States cannot go on, hoarding their silver as they are still doing). India is almost the only outlet for it. It will go either by direct shipments from America to India, or by way of the London market. The usual route for it is by the London market. It comes across here and is forced off. If they stop the hoarding of it in America it must come here for sale, it must compete with Indian bills, and it must force down exchange. I do not know how low, it would be ridiculous to predict, but I think it is very likely that it might be forced much lower than any of us dream of. Well, then, the effect of prices payable in greatly depreciated rupees and annas for British manufactured goods, must undoubtedly be to stimulate the planting of native industries in India. We see what has taken place in Calcutta in the planting of jute factories there. Some Dundee people thought that they would still keep the hold of that trade, and get cheap labour out in India and cheap jute. Freights were then very high, and they planted some jute mills. These have got extended; they are not now all in the hands of Dundee people, they are in the hands of London and Liverpool and Glasgow people largely, and they are making jute goods in

Calcutta, I know, at prices that Dundee cannot compete with. We ourselves struggled on shipping bags from Dundee to the West Coast and to California, but we found ourselves losing heavily one or two years. We found that our neighbours were getting cheaper goods in Calcutta, so, contrary to our own inclination, we had to abandon buying in Dundee and had to make our purchases in Calcutta. Now freights are so low all over the world that we get goods sent from Calcutta to San Francisco cheaper than to London. We paid four dollars and a half a ton last year, and the demand for these Calcutta goods is of course just taking away the trade from Dundee altogether, except in those other staples made of jute that from time to time come into play in this country; but practically the trade in bags and sacking is taken away from Dundee to Calcutta almost entirely. The same thing may happen in cotton goods, and our persistent adherence to a gold monometallic standard will inevitably give a greater stimulus to the planting of native manufactures in India.

5966. Do you think that if the Indian Government were to cease borrowing in the English market and to borrow in India on a silver basis instead, that would be likely to have any prejudicial effect upon the trade between this country and India?—I think it would reduce the exports of commodities from this country, but it would be beneficial to the Indian Government and a necessary step for them to take, I think.

5967. You think that borrowing in India on a silver basis, instead of in this country on a gold basis, would be a prudent course for the Indian Government to take as far as they were concerned?—Yes.

5968. My question was rather directed to the point whether it would be likely to have a prejudicial effect upon the trade between this country and India?—The way it would act would be simply this. Silver is pressed upon the London market; the borrowing in this country would enable you to send it out, and it would not curtail the export of goods from this country to any appreciable extent; but if you borrow in India you do not require to send the money out, you have then the silver competing with council bills exclusively. The silver comes and is forced off on the London market, and that necessarily must bring down the exchange and reduce the volume of our exports of goods to India.

5969. Have you any opinion on the question which has been raised whether our national wealth has grown in recent years or not?—Yes, I have read statements from time to time in *The Economist* upon that question. I think that *The Economist* has left out a good many facts in its calculations. I think that they have left out of account the very large diminution in the value of shipping property which I estimate at about 50,000,000*l.* sterling; and it is well known that we hold a much lesser amount of foreign securities of certain classes, such as Russian stocks and United States bonds, than we did years ago.

5970. When you estimate the depreciation of shipping property since 1880 at 50,000,000*l.* sterling, do you arrive at that estimate upon the basis of the increased quantity of shipping between now and 1880?—I will take the medium quantity, I will take 7,500,000 tons at 7*l.* a ton; it will come to 50,000,000*l.* in round numbers.

5971. Yes, but there has been a large increase in the tonnage between 1880 and 1885?—Yes, but I take the average quantity of tons. A steamer, for instance, was sold in Liverpool the other day. She was built in 1883. She was sold for 13,500*l.*, and she cost 30,000*l.* She was a steamer carrying 3,000 tons. She was forced off at auction, and she only brought 13,500*l.* What of vessels that were built about 1880 or before 1880? The diminution in the value on the quantity existing in 1880 or the quantity existing a few years ago is at least 50,000,000*l.* sterling.

5972. There has been a very great addition between 1880 and 1885 in tonnage?—Yes, there has been to the extent of perhaps 1,500,000 of tons.

5973. That would naturally tend to a diminution of

value unless there had been an increase in the demand for carrying purposes, corresponding with the increase in the tonnage?—I am only stating a fact that I think *The Economist* lost sight of. While they give a glowing account of the increase of our national wealth, they forget a diminution of value in other quarters.

5974. You are not speaking of the causes which led to that diminution?—No, not at all; merely I apprehend that the calculations of the *The Economist* are erroneous. I do not know what it is in London, but I know that in Liverpool there are whole streets of houses standing empty, working men's houses. In the course of a few years a street of working men's houses becomes so dilapidated that decent people go out of it, and then there are new streets built of working men's houses in the suburbs, and the working people go into these and leave the streets they had occupied empty. *The Economist* says we have had a great increase in the value of our house property. Yes, but I think they lose sight of depreciation, of natural deterioration besides actual depreciation, and so in many other particulars. In landed property, we all know there has been a great depreciation, and I think *The Economist* entirely lost sight of that. I do not think our national wealth is increasing. That is my belief.

5975. I gather that you think that the condition of things arising from the suspension of the use of silver as a standard in Germany and other countries is sufficiently serious to demand some remedy?—Most assuredly. Not a new remedy, but a reversion to what existed in this country with great advantage, the bimetallic system that we had. It is not a new remedy.

5976. When did that exist in this country?—All through last century. We are accused of introducing a novel idea. It is not novel; it exists in France now with advantage, although free mintage, which is the real thing that we want, does not exist, but you can pay your debts to day in silver to any extent in France.

5977. You mean reverting to the condition of things which existed in France prior to 1874?—Exactly so. But on a much wider basis.

5978. And adopting that state of things in this country as well?—Yes, I do not think that France by herself can do it. France and the United States together could, but I do not think that the United States will venture without the concurrence of England and Germany, one or other of them at any rate; and seeing that we are so largely beholden to our manufacturing industries for our existence, I think it behoves us to give serious consideration to this question.

5979. Has the import of wheat from Chili increased of late years?—No; it is not a large quantity, it never has been a large quantity, it has never exceeded half a million of quarters in a year.

5980. Then the depreciation of currency in Chili has not in fact stimulated the export of wheat from that country to this?—No, but the low exchanges and low freights during recent years may have enabled Chili to ship part of her surplus to Europe during a time of very low prices.

5981. (*Mr. Barbour.*) Can you say when the export of wheat from Chili began?—It began 40 years ago.

5982. You hold that in the present day, the export trade from this country to silver countries depends very much upon the exchange; that you have to watch the turn of the market to get a favourable exchange?—Naturally yes.

5983. Have you had any experience in trading with countries which had the same standard as England, or with countries which had a silver standard at the time that silver and gold bore a fixed ratio to each other?—Well we have, as I told you, a house in San Francisco where practically, because payments there are on a gold basis, we find no difficulty.

5984. You have not to pay the same attention to the

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probability of fluctuations in exchange?—There are slight fluctuations in exchange that do occur and will always occur when there is a greater or less demand for money. But you can either send the coin out to, or bring it in from, a gold using country, subject to the mere charges of transmission, and you have to allow for that in your calculation, as a prudent merchant in any case will, if he has to give long credit.

5985. But if there is no common basis between the two standards, the balance of indebtedness has to be adjusted by the exchange acting directly on the trade. It cannot be adjusted through money?—With a silver using country it cannot so be adjusted under present conditions.

5986. You cannot make an adjustment through money, and that is an inconvenience, because the exchange acts directly on the trade, checking the trade for the time being, or stimulating it, as the case may be?—You can, of course, make an adjustment through money, running the risk of losing very heavily by your remittance of it.

5987. Have you heard that a fall of a penny in the rupee makes a difference to the Government of India now of ten millions of rupees in a single year?—I believe so. Yes.

5988. For 1882-3 the Indian estimates were based upon an exchange of 1s. 8d. and for the current year, 1887-8, they are based upon an exchange of 1s. 5½d. That makes a difference of 2½d. in the rupee?—Yes, and now I understand the Indian exchange is really about 1s. 4½d.

5989. That is 2½d. in five years, or ½d. for each year?—Yes.

5990. And that is on the average an additional half million of money every year since the year 1882?—Yes, it would be so.

5991. There had been also a considerable fall before 1882?—Oh, very large.

5992. And are you aware that since March of this year, since the estimates were made on the basis of 1s. 5½d., the exchange has gone down to 1s. 4¼d. as nearly as may be?—I believe so, rather lower in fact.

5993. That makes a difference of ¾d.?—Yes.

5994. And that at the present rate of exchange would be about eight millions of rupees?—It would be.

5995. Do you consider that such a state of affairs is a serious matter?—Most decidedly for the Indian Government, and so must react on our own trade.

5996. I think you hold the opinion that when exchange with India falls, and the Manchester manufacturer finds that he cannot get a higher rupee price than before, he tries in some cases to meet the difficulty by lowering the quality of the goods?—Well, I have had no experience of the Indian trade, but I know that we have had to do that in our Chilean trade; not that we would do it willingly, but the traders have a decimal currency. They have got certain small coins 10 cent, 15 cent, and 20 cent. pieces, you may say a token currency like our own, and the course of the trade compels them to bring articles to sell to the poor work people who must make their wages go as far as they can. They try to get it to fit in with the small silver coins, and the consequence is that with the great fall in exchange they are obliged to ask us to bring cheap goods. We do not choose it. There is often a great deal of nonsense talked about English merchants and manufacturers lowering the quality of the goods they make. They make as good qualities as they ever did and they make goods as poor as they ever did. It is no new thing. We simply send out what they ask us to send, whether it be cheap domestics or cheap prints. Of course there is a larger portion now of low class goods sold in those countries that are being affected by heavy declines in the exchanges. There is a larger proportion, although there was always a certain proportion, but as the exchange goes down you must get a larger proportion of low classed goods in order to fit in with the wants of the dealers.

5997. For goods manufactured in a gold standard country and sold in a silver using country the trader adjusts the matter as far as he can by lowering the

value of the article as the value of silver falls relatively to gold?—That is one of the necessities of the situation with silver using countries or with countries with a very fluctuating paper currency based ultimately on silver.

5998. (Mr. Birch.) I think you stated just now that formerly there was a ratio between gold and silver in Chili. Can you tell me when that was or what the ratio was?—The ratio was the French ratio of 15½ to 1 or within a fraction of it.

5999. And now what is the ratio between the paper and the silver?—None whatever. It is based on the possibilities of resumption, which of course would become much stronger and might become effective at once if silver was put in its old position.

6000. Yes; but is there no discount on the paper at present?—Oh, yes, the exchange just now is about 26s with Chili; and the silver dollar, the old Chili silver dollar, if remitted, would give about 32s.

6001. And that difference, I suppose, you have to take into consideration in such operations?—It is not a fixed discount. Even if we got paid in silver we could not remit the silver dollars as we used to do when sellers of bills to us did not give us the exchange that we thought reasonable. We merely remitted the dollars in those circumstances, but we cannot remit paper money.

6002. Then those silver dollars would give you varying exchanges in accordance with the variation of the premium upon the silver dollar?—Yes; that is quite true. The silver coin does not appear just now in our calculations as it does in the River Plate, where there is a premium on gold or a discount, but they have simply a paper dollar in Chili now.

6003. But surely the paper dollar, being at a discount, and a varying discount from one day to another, must be a great hindrance to the introduction of commodities which you were speaking of just now?—It accentuates the difficulty very greatly. We would have difficulty enough with silver, but the difficulty with inconvertible paper is much greater.

6004. The difficulty is greater, but the difficulty would exist even supposing silver should return to the ratio that previously existed in Europe?—Certainly it would remain if the paper money remained. But I have tried to point out that there would then be a stimulus to resumption.

6005. That would depend rather, would it not, upon the powers of the country itself?—Yes, Chili has plenty of power to resume specie-payments if they set their minds to it.

6006. Then I understood you to say that the difficulty is not so much what is now felt, as what may happen in the future?—Evils have happened, but I think much greater evils may happen in the future unless we try to put this matter right.

6007. I have before me a book published in 1859, in which exactly the same difficulties were foreseen and prophesied with regard to gold as you are now prophesying with regard to silver. This is a book that was written by Monsieur Chevalier, a man very well known in France; and the same things were stated then with regard to gold as are now stated with regard to silver. He foresaw that gold would then be produced to a large extent and English Consols would decline in value, very much what is pointed out now with regard to silver. The difficulties that presented themselves to Chevalier's mind evidently arose from a fear of a superabundance of the metal?—The difficulties now are of a totally different character, they arise from the inadequacy of the metal gold for the use of the world. You are forcing gold, the great monetary nations of the world are forcing the use of gold, and the quantity of gold is notoriously inadequate, consequently the difficulties that Chevalier faced, or apprehended rather (for it was a mere apprehension), are totally different from the actual difficulties that we are practically experiencing.

6008. (The Chairman.) But is it not the converse case?—Yes, exactly the converse of it.

6009. (*Mr. Fremantle.*) In one case there has been too much gold, and in the present case there is too much silver?—Yes, or too little gold; that is to say, if gold is to be used universally, there is too little of it.

6010. (*The Chairman.*) What I meant by the converse case was that what M. Chevalier apprehended from a certain condition of things was exactly the opposite of that which you apprehend from the opposite state of things?—Exactly so.

6011. But then what is suggested to you is that as his apprehensions proved ill-founded, so yours may prove to be equally ill-founded?—No, because his were mere apprehensions and never were embodied in actual facts at all. They vanished, they were found perfectly illusory, but we have experienced the difficulties.

6012. (*Mr. Birch.*) Surely they were not illusory, inasmuch as prices, you remember, rose very materially?—Yes, and wages rose also and people were able to pay better prices; there was more general prosperity.

6013. (*Sir L. Mallet.*) But are you not confusing the two things?—In the first place you have a question of the effect on prices, as to which, no doubt as you say, M. Chevalier's apprehensions were the converse of those which are now current; but in Chevalier's time at all events there was what there is not now, a fixed ratio between the two metals; at all events there was no variation, whether it was caused by the French law or not is matter of controversy; but at all events as matter of fact, the price of gold and silver remained practically at a fixed ratio during the whole of the period of the gold discoveries; and the difficulties that you, as I understand it, apprehend from the present prospect before us arise from the fact that the two metals, which for 70 years had been practically at a fixed ratio are no longer at any ratio?—Quite so, are divorced from each other.

6014. And are flying about wildly without any kind of thing to keep them together—a state of things quite different, as it seems to me, in that respect from the case which Chevalier contemplated?—The apprehensions of Chevalier have no bearing whatever on this question.

6015. (*Mr. Birch.*) You were referring specially to the business of Chili and how much it was interfered with. We had one leading witness the other day before us who stated (question 3069) that "if the exchange should rise from its present point of 25d per dollar to somewhere between 36d and 40d, not another quarter of wheat would be grown in Chili for export; many copper mines which subsist on the low exchange would be closed, and many nitrate establishments would be in the same case." Now as you are a merchant trading with Chili it would hardly appear that it would be greatly to your advantage that that state of things should be brought about?—Well, I believe this, that being on an enforced paper currency, and wages not having yet risen as might have been expected the smelters of copper are able to carry on a struggling industry nominally with some advantage, but their whole property is correspondingly depreciated in value and the thing will come to an end. Workmen will stand out for higher wages, and they will be no better off in the end. If Chili cannot produce copper in competition with countries that produce copper more cheaply then it is evident they will not be able to maintain the manufacture there. In Australia it has gone down, because they cannot compete with Montana, and I grant that Chili has a struggle in regard to her copper industry; there is no doubt about that, and the use of paper currency *pro tempore* alleviates the evil, that is all. If Chili cannot produce copper to compete with other nations that produce it more cheaply, then she must improve her methods, and her methods of mining. With respect to nitrate of soda, it only comes from the coast of Chili, and whatever the importers of nitrate of soda demand has to be paid. They have no competition. If the price is put up very high naturally the consumption of it will fall off. In regard to wheat I do not believe that

its production would be very materially affected. The quantity exported to Europe is very small.

6016. But you would allow that the merchant trading with a country like Chili and exporting goods, as you have told us just now that your house does, would not be benefited by that country failing to be able to export its produce. Surely the condition of the country being a flourishing condition must be advantageous to you who ship your English goods there. You get a better chance of being paid than if they had nothing to ship?—Yes; but I do not think that any prudent merchant ought to base his transactions on prices that are inflated by the use of a paper currency. They ought to get on some prudent basis, and I repeat that if Chili cannot produce copper in competition with other countries, then her copper industry must decline, and it is declining in competition with Spain and Montana.

6017. (*Mr. Houldsworth.*) Do you approve of the doctrine that the fall in silver has stimulated the export of wheat from India?—It may have done so to a certain extent, but the fall in freights has given an equal stimulus.

6018. I understood you to say that you did not think it had done so in the case of Chili. Now we have had very strong evidence, in fact I think the evidence has been universal, that it does stimulate it in the case of India or that it has stimulated it?—Yes, in regard to export naturally, but taking it in view of the entire growth of wheat in India, the margin for export has not increased enormously in proportion to the total quantity of the crop grown in India. That is to say we only get a surplus, and that is a small quantity of the entire crop of wheat in India.

6019. What I wanted to ascertain was whether in your mind there is any difference in the position of Chili from that of India, with regard to the stimulation of the export of wheat?—Yes, there is a difference, because Chili has a small population. It has only a population of barely 2,000,000 of people, and they have not got hands for the growth of it. The production of nitrate of soda has increased, and wages in the north part, in the desert part of Chili, have been higher than in the agricultural part, and hands have been drawn away. Then they lost a good many men in the war with Peru, and other circumstances have come into play in Chili, with regard to the production of wheat, which do not apply in India.

6020. Then would you anticipate that in India the export of wheat would be largely stimulated if the present fall of silver was continued or was increased? It has been stimulated, no doubt. If the rupee fell to 1s. there might be a further stimulus, but what then of the Indian debt, and of our export trade?

6021. And it would continue to be stimulated to a large extent?—It may be; it depends, however, very largely on the cost of internal carriage, and on the maintenance of those very low freights that are so totally unremunerative to shipowners. I do not think that during the last two or three years the Indian crop of wheat has increased.

6022. Do you think it has been the increased export from India which has reduced the price of wheat in this country to any extent?—Well, prices fall so soon as you get over the exact quantity that this country requires to import for consumption. So soon as you get a surplus of a million of quarters floating about wanting buyers, prices go down.

6023. Then you do think that it has?—Yes, but look at the question in this light. Our wants are about 15 to 17 millions of quarters a year. We have never in any year had more than three millions of quarters from India, about one-fifth of it. No doubt that one-fifth has had its influence in lowering the prices, along with other imports from the United States, California and elsewhere.

6024. Do you not think that the present state of things will increase that export from India, and that instead of one-fifth it will become a larger proportion?—It may be; but if the Indian people have to pay more for their goods, and if the price of wheat, which

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is one of our own commodities that we grow in this country, is unduly depressed by means of very unjust and erroneous monetary laws, then I do not think it is an advantage. I would be very glad to see India competing on fair terms, with Indian money on the same metallic basis as our own. I do not see why we

should make laws to stimulate the growth of Indian wheat adverse to the whole of our other commercial interests and to our own agricultural interests too; that is to say, I do not think the present is a fair basis. Looking at it all round I think there is disadvantage instead of advantage.

The witness withdrew.

Adjourned.

Twenty-fifth Day.

Friday, 24th June 1887.

PRESENT:

THE RIGHT HON. LORD HERSCHELL.

MR. D. M. BARBOUR, C.S.I.
MR. J. W. BIRCH.
MR. HENRY CHAPLIN, M.P.
MR. L. COURTNEY, M.P.
SIR THOMAS H. FARRER, BART.

MR. C. W. FREMANTLE, C.B.
SIR W. H. HOULDSWORTH, BART., M.P.
SIR JOHN LUBBOCK, BART., M.P.
SIR LOUIS MALLET, C.B.

MR. GEO. H. MURRAY, *The Secretary.*

*Mr. J. Barr
Robertson.*

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Mr. J. BARR ROBERTSON called and examined.

6025. (*The Chairman.*) You have resided, I believe, some time in the United States?—Yes, 10 years.

6026. And have paid considerable attention to questions of currency and variations in the value of the precious metals?—Yes, I have.

6027. It is a subject which has excited much interest on the other side of the Atlantic as well as on this side?—Yes.

6028. I believe you have drawn up a table showing the changes that have taken place during the last 25 years in England, and in India, as a gold and silver using country?—Yes, I have.

6029. Will you explain to us the sources from which you have obtained the materials, and the result?—It commences with gold. The eight years, 1858 to 1865, and the 10 years, 1866 to 1875, are taken from the Report on the Depreciation of Silver of 1876. The 10 years, 1876 to 1885 and 1886, are taken from the Board of Trade Returns. 1886, I may say, is taken from "The Economist's" monthly issue of the Board of Trade Returns. Silver is from the same sources.

6030. And is that the case with regard to India, as well as the United Kingdom?—India I have taken from the Report on the Depreciation of Silver down to, I think, 1873–74. I took these from the India Office returns. I had them specially sent to me for the purpose, so that these figures are all really official figures.

6031. Now as regards the result you find the net imports in the eight years 1858 to 1865, of gold, into the United Kingdom to be 29,658,000*l.*?—Yes, that is correct.

6032. By net imports, I suppose, you mean the gross import of gold during that period less the amount exported?—Yes, that is the meaning of it.

6033. Then in the following 10 years it was 50,108,000*l.*?—Yes.

6034. Making an average annual addition to the gold in this country during the first eight years of 3,707,000*l.*; and during the following 10 years of 5,011,000*l.*?—Yes, that is correct.

6035. Then in the next 10 years, from 1876 to 1885, I understand you to say that the exports of gold from this country exceeded the imports of gold into it?—Yes, they did.

6036. Showing a net export of 865,000*l.*?—That is correct.

6037. Was that process going on generally during those 10 years, or did it result from any specially large export during any particular year?—There were five years in which the net exports amounted to 17,988,000*l.* and five years in which the net imports were 17,123,000*l.* Of course, I have the whole of the tables showing exactly what that is, though I have not brought them with me, and have not put them in my memorandum.

6038. Then in 1886 the net export was 342,000*l.*?—Yes. The reason why I have these tables in that form is that I drew them up just about 16 months ago, as I was going to America, and I have only recently returned. I had them complete up to 1885. I put in a year later. The figures also show, of course, an increase on the average for that one year. That is how I make the 11 years.

6039. That 11th year showed a larger export than the average of the previous 10?—Yes, it did.

6040. Before we leave the gold, have you endeavoured to ascertain in what form that net increase, during the first 18 years of the period which you have taken, remained in this country?—I have not done that, except that there are tables showing the estimated consumption in the arts, and, of course, the balance naturally would pass into currency.

6041. You say that the balance would pass into currency, but it can only pass into currency by being added to the reserve or by being actually coined?—It must be coined, of course. Then there is far more coin than what this net amount is. It may be coined, and exported as coin. I daresay it will be found that most of it is so; but the coinage is a very unreliable test, in my opinion, as to the movement of the metals. The fact that it is coined is no proof at all that it remains in the country.

6042. Yes, but have you at all carried your investigations out to ascertain whether there was an increase of the reserve of bullion in this country, or of coinage, representing this net import?—No, I cannot say that I have; I am dealing with the official figures simply.

6043. And supposing that there was no addition to the reserve of bullion, then it would all have taken

the form of an increase of the coinage, I suppose?—Of course the natural form would be to be coined in much larger quantities than what we absorb, than what passes into the currency, and the currency might be increased without anything to show in the Bank of England reserve, as that is in a general way comparatively stationary.

6044. Yes, but if the Bank of England reserve was stationary, then the whole of it must in some way or another pass into circulation?—So it must, yes. Prices regulate whether it will pass into circulation or whether it will go abroad.

6045. But according to your investigation this did not go abroad, this is the excess of imports over exports, which remained in this country?—Yes; precisely. Consequently, allowing for what was consumed in the arts, which, in another part of my paper I show, upon Dr. Soetbeer's calculation, probably amounted to 2,400,000*l.* a year, though it would of course be less in the period from 1866 to 1875; then the balance must have gone into the currency, it must have gone into circulation, it did not go abroad.

6046. Supposing it went into circulation in that way, must not that have shown itself, somehow or other, in the amount of coin held by the banks?—No; it would only show itself to a small extent in the banks, because they are simply private institutions, holding enough to protect a certain amount of capital and liability.

6047. That is, people must have had more in their pockets?—Precisely, that is inevitable. There must have been more in their pockets, more in their tills, more in their counting-houses.

6048. That would be a change of habit, would it not, if people kept any more in their pockets? People generally take such coin as they have to the bank, except the small amount they need for their daily transactions?—Still, of course, you will readily see, whereas we were importing 5,000,000*l.* sterling a year, it was impossible for the bank to hold 1,000,000*l.* or 2,000,000*l.* more than a certain fixed quantity without lowering the rate of discount and driving it abroad or into general circulation. Suppose now that a large amount of gold was produced in the world, say 100,000,000*l.* sterling, that gold must pass into every country on the gold standard. I am speaking about normal conditions. That 100,000,000*l.* must pass and must distribute itself according to the proportion that each country holds of the gold standard. It must pass into the countries having the gold standard, and most of it must pass into general circulation, because all the financial institutions are simply private institutions holding a certain amount to protect liabilities, and are in no sense mere repositories of the precious metals.

6049. Yes, but what puzzles me is this, how the habits of the people should have become changed, so that instead of paying in all the money that they receive into the banks they should have kept it in their pockets or in their houses?—The habits of the people did not change in the 10 years 1866 to 1875, they still paid into their banks, but any surplus beyond the necessary reserves of the banks must have passed out of the banks into the hands of the people and influenced prices.

6050. But I want first to see where it is?—Well, I will take an illustration. I will suppose that any one purchased a certain amount of articles 12 years ago, and is purchasing the same articles to-day; it is very evident that prices having fallen, for whatever reason is not material for the moment, a smaller amount of money will enable him to make all these cash purchases than would have been required 12 or 15 years ago. He has not changed his habits, though he will require less money for current wants than formerly. Now, it seems to me that the money in the country during periods of excessive imports of gold not being in the banks it must be held in the pockets of the people, or in tills and counting-houses; it must be, where can it go? The banks may hold only a small

portion of it. Money has, therefore, its effect upon prices by being to a larger extent in circulation.

6051. (*Sir T. Farrer.*) Wholesale or retail prices?—Upon both, though wholesale prices are real prices. Of course retail prices are largely conventional. They differ for the same articles in different shops and in different localities.

6052. (*The Chairman.*) I am coming to the relation of the volume of currency to prices presently. I was for the moment only trying to trace where this addition to the amount of the precious metal, if it existed, was to be found?—It must be in the hands of the people.

6053. (*Mr. Courtney.*) Is it not the usage of the people who are dealing with large sums of money to deposit their money with their bankers and to draw as wanted?—Yes, it is, although people dealing with large sums, and having large command of money, rarely have much money, as their transactions will generally be in documents—cheques or bills—which they will deposit with their bankers, and the amount will be placed to their credit.

6054. Well, if there was a large accretion of gold in any one year in the United Kingdom, would not the greater part of that be deposited with the banker until wanted?—Well, if deposits were increased any banker would hold a larger amount of gold against these increased deposits, that is perfectly true; but he would only hold, say, one quarter or one fifth or less of the gold deposited, and the surplus, I maintain, must pass into general circulation among the people.

6055. (*The Chairman.*) That is what is rather puzzling me. I do not quite understand how there should be more in the hands of the people; because, if the habit, which certainly was acquired prior to 1858, of people paying all the money that they did not want for their immediate use into their bankers still continues, why should not any extra gold that came into the country have found its way into the hands of the bankers?—Well, I might put the question the other way. Where else is it to go? It must remain somewhere in this country because we are on the gold standard, we are assuming that every country has got a large amount of gold, and the bankers only hold a reserve against their liabilities, they hold only a fraction of the amount of their deposits.

6056. It may be that the true explanation is that more was used in the arts, or that there is some error in the calculation or in the returns?—You see we are assuming an addition of the quantity of gold that is not required in the arts.

6057. Then it may point to this that there is some error in the returns, in the figures?—That can scarcely be the case, as considering the production of gold there is no inherent improbability in the fact of our getting so much.

6058. I mean if you have to account for it either by saying that there is some error in the figures, or by saying that people have changed their habits, and keep large sums of money in their pockets or in their places of business, it may be that the former is rather the direction in which one would look for the explanation?—Well, I maintain that the habits of the people may be assumed to be the same, only when prices are high people must pay more money than when prices are low, and thus both those who have bank accounts and the very great number who have no bank accounts must use more money in the transactions where they pay actual money and not cheques. I do not say that there is no economy of money, more banks opening up and that sort of thing, still, as matter of fact, people carry about money in their pockets in proportion to the amounts they have to pay in money.

6059. (*Mr. Birch.*) All the evidence and all the experience I have had in connexion with banking is exactly the contrary, that there is less money carried about in the pockets of the people, and that most payments are now made by cheques. We pay cheques generally for everything, and we do not carry about money in our pockets, save for petty payments, as railway and cab fares, and such small calls upon one's

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purse?—Still there are 37,000,000 of people to-day, all using more or less money. There is an increasing population, and what I maintain is this, that the banks simply take what gold they reasonably require; they do not want to hold large quantities of gold which bring no profit, that is beyond reasonable reserves against their liabilities. When the banks have a much larger amount of gold than is necessary to protect their liabilities it seems to me that their natural course must be to invest this surplus in first-class securities. I take the Bank of England. Notwithstanding the diminution in the stock of gold in the United Kingdom, the Bank of England continues to hold practically the same amount as before:—

£

Average amount of coin and bullion	
in Bank of England in 1874	- 22,294,000
" " " 1884	22,955,000
" " " June 1st, 1887	23,562,000

Notwithstanding the larger business being done in the world, the Bank of England has usually no more gold or silver; its capital is nearly at the same figure. Its deposits are not any greater, probably less sometimes, so there is the fact, the Bank of England itself has not any larger amount of gold in the vaults than it had 10 years ago.

6060. It is constantly varying, you know; we have had 36,000,000*l.* and 19,000,000*l.*?—Still, I am taking the average over long periods, showing there is no great variation in the normal supply, and particularly when the rate of discount is neither high nor low compared with the permanent rate of interest.

6061. (*The Chairman.*) Have you made any investigation of the deposits held by the banks from their customers during this time which covers the diminution of the gold in this country?—I have not.

6062. I suppose you would expect, would you not, during that time that the deposits would diminish?—Yes, they might diminish per head of the population; yes, on the whole I would expect them to diminish to some extent, though as the holders of securities and the investing classes generally have gained immensely in purchasing power it might be that deposits had not diminished per head of the population.

6063. (*Mr. Courtney.*) Supposing you divided the people roughly into two classes, private persons and merchants; in the course of business if merchants receive money, you would not say they put it in deposit in the bank, but they put it in the bank to draw against?—Yes, that is true.

6064. And no greater affluence of money would cause the result of more money being held by the merchants?—No, except in so far as higher prices would require a larger amount of money on hand for small payments.

6065. Well, then, do you think that the greater affluence of money has caused the result that the average amount kept in the purses of the private inhabitants of the kingdom has increased, or did increase, during those years 1866 to 1875?—It must be evident that in all cash transactions the money paid out of the pocket or the till must be greater when prices are high than when they are low. During the last 10 years the amount of money outside of the banks has undoubtedly diminished; that is, where the diminution falls.

6066. Whereas a man was content with carrying about on an average 4*l.* or 5*l.* in cash and drawing on his banker for anything extra, he would increase that 4*l.* or 5*l.* to 6*l.* or 7*l.*?—Yes, I think he would, during the period of increase in money.

6067. But what force or motive would induce him to do that; it is inconvenient to him to increase his money in his pocket?—If he has to pay higher prices for what he is purchasing, he must have more money in his pocket to pay higher prices for the same articles.

6068. You are not conscious yourself of having carried about more money with you?—No individual can judge on a point of that kind; it is hardly an individual question.

6069. (*The Chairman.*) Almost all wholesale trans-

actions are settled simply by cheque upon the banker?—That is perfectly true.

6070. No money passing, the whole of the transactions being settled by a system of set-off?—Now that was in existence, except probably in Liverpool and one or two towns of that nature, 20 years ago. No merchant who had a bank account held any more money practically than he does to-day. The mercantile business does not weigh in this question very much, the actual money in the counting houses of merchants being so very small in comparison to their business.

6071. That is what puzzles me as to this great increase in the gold held in this country during those years. I do not quite understand why it should have been held by people who usually did not hold money but paid it into the bank?—Well, where is the gold to go to; a certain amount is there; it is an automatic thing; it comes into the country; it will be paid into the bank; the bank will have to use it, or pile it up; and as no bank does keep it piled up beyond a limited amount, consequently it must pass out of the banks and be in the hands of the people. There is at any one time a certain amount of money in the banks, and a certain amount in circulation outside of the banks. In periods of what is called inflation of the currency, the percentage of money outside of the banks as compared with the amount in the banks will be greater than it was before inflation took place. On the other hand, when the currency is diminishing and contraction is taking place, the percentage of money outside of the banks as compared with the amount in the banks will be smaller than before contraction set in, and thus the diminution must come almost entirely out of the pockets of the people and out of the tills of merchants.

6072. When bankers receive money they lend it out to somebody else. Well, that somebody else pays it into his bank. It may remain out for a very short time, but it will come back into the bank?—There is an average business that a bank does, depending on its reserve. Of course, a large bank can do a large business, and a small bank can do only a small business.

6073. But if a bank lends a man 1,000*l.* for a mercantile purpose, the man who receives it pays it into his bank, and he will only draw it out as he wants it. If he pays it to some person doing work for him, that person will pay it again into his bank, therefore I do not quite understand how the money should be an addition to the circulation, that it should not show itself in any way in the reserves of the bank or the coin held by the bank.

6074. (*Mr. Courtney.*) I might, perhaps, add to the statement of the Chairman, that these loans and repayments are not accompanied by any movement of real money?—The loan of 1,000*l.* may or may not be accompanied by any movement of real money. It may be dealt with entirely by cheques, and these cheques may be paid into other banks. But the 1,000*l.* may be wanted entirely for wages, and if so every sovereign of the 1,000*l.* will be drawn out of the bank, and before it filters back to banks another 1,000*l.* may have been borrowed for the same purpose.

6075. (*Sir W. H. Houldsworth.*) Would not the increase of population account for it?—Well, of course, that has a considerable influence.

6076. That would be the same thing as individuals carrying more money, more individuals wanting money?—The increase of population would really account for a certain amount of contraction of money; more population requires more money.

6077. And that would really account for where this gold has gone to *pro tanto*?—It would certainly in proportion to the increase of population.

6078. Would it account for all?—I do not think the increased population from 1858 to 1875 would; while the increased population for the last 10 years would not account for more than 1,500,000*l.*, I think.

6079. (*The Chairman.*) You mean each year?—

Each year; it means so much more money than the previous period for the population alone.

6080. (*Sir W. H. Houldsworth.*) The increase of population would account for the gold between 1858 and 1875; now the population has increased by 4,000,000, from 28,000,000 to 32,000,000, I think. Would that take up the extra gain of gold in this country, do you think?—No, I do not think it would; but then the increased amount of gold set in motion a vast amount of new industries or extensions of then existing industries.

6081. Of course, in addition to the point you put just now, which is worth consideration, in addition to the 4,000,000 of increased population, those 4,000,000 are engaged in industrial work, therefore they would carry no more in their pockets, but would use more money in various forms of industry?—Yes, certainly.

6082. (*The Chairman.*) There would be a great deal of what is carried in the pocket and paid in wages, in silver, would there not?—Yes, no doubt.

6083. (*Mr. Courtney.*) The increase of gold in the period from 1858 to 1875 is 80,000,000*l.* in round numbers, is it not?—Yes, it is.

6084. That bears a proportion to the estimated stock beforehand of about 40 per cent.?—More than that; probably it is 100 per cent.

6085. Is altogether out of relation to the increase of the population?—Entirely.

6086. (*Mr. Barbour.*) Have you deducted from that 80,000,000*l.* whatever amount would probably be used in the arts?—No, I have not; I am giving a comparative statement of the quantity absorbed in this country.

6087. But if you deduct from that the amount supposed to be used in the arts and for ornaments, you would get a less addition to what you may call the money of the country?—Yes; certainly you would.

6088. (*The Chairman.*) Now to pass to the silver, during the 10 years 1866 to 1875 the net imports of silver you put at 12,714,000*l.*?—Yes, that is correct.

6089. And the succeeding 11 years the net imports you put at 2,000,000*l.* only?—Yes. Of course I may explain that I do not place any importance on silver for this reason. Silver, of course, is a limited article, coined in a limited quantity. It has comparatively little effect in this question of money, very little indeed. The gold, the full valued currency of the country, is what of course can be increased or decreased by imports or exports; the silver cannot be changed except by the wants of the people, either using less or using more, consequently you provide an automatic system at the Bank of England, by which the Bank is bound to give silver money for gold or gold for silver, so that silver cannot become either redundant or deficient.

6090. What rather strikes me about those silver statistics is this, that I should have expected an increase of the population, so far as it affected the currency, to have shown itself in an increase of the silver used, wages being paid to a large extent in silver, and the silver production having certainly increased rather than diminished during the last 10 years?—Yes; well, of course, you see the Master of the Mint coins what is demanded for money. This is a totally different question from the gold, which must be coined to any extent, as it may be offered. I only put the silver in to show you the figures. To me they are quite unimportant.

6091. (*Mr. Barbour.*) Do these figures of the imports of silver given by the Board of Trade include the lead ore which contains silver which may have been imported into this country?—Well, I am not sure on that point.

6092. Because if there has been a considerable import of ore containing silver, which is not shown as an import of silver, that may account for the apparent falling off in the imports of silver?—That may account for the deficiency, because the use of silver in this country must have amounted to a great deal more than 2,000,000*l.*, and it must have been imported;

but the figures I have taken were from the Statistical Abstract and the Board of Trade Returns.

6093. (*Mr. Birch.*) We produce a great deal of silver in lead mines here?—I have no statistics relating to that. Silver does not enter into the currency in any sense the same as gold. Although there were 20,000,000*l.* of silver imported we should still only add the insignificant amount which the Bank of England would demand at the Mint, so that although I have put these figures in they are the same as the gold figures in India; they do not figure in the currency at all, because the production of silver might be enormously increased without our coining a single additional shilling on that account. I do not look upon the statistics of silver in this country as having anything to do with the currency, because we only can add a limited quantity when it is wanted, whereas we are bound to take all the gold offered, and give up all the gold demanded.

6094. (*The Chairman.*) Passing to India, you deal with silver there, of course, as the principal metal?—Yes.

6095. In the 10 years from 1863-4 to 1872-3 you find the net imports of silver to be 78,182,000 tens of rupees?—Yes, that is the amount.

6096. That is an average of 7,818,000 tens of rupees a year?—Yes.

6097. And in the succeeding 10 years the net imports of silver are 59,116,000 tens of rupees, or an average gain per annum of 5,912,000 tens of rupees?—Yes, that is the case.

6098. Then after that date you give them year by year. In 1883-4, 6,406,000; 1884-5, 7,246,000; 1885-6, 11,607,000; and 1886-7, 7,156,000?—These are correct.

6099. Excepting 1885-86, which seems to have been unusually large, that gives something like 6,000,000 to 7,000,000 tens of rupees per annum?—Yes, that is correct. I print that to show the comparison between 7,818,000 tens of rupees per annum in these 10 years, and 6,538,000 tens of rupees per annum in the last 14 years, during which the production of silver has very largely increased, and where authorities have predicted that consequently India would be deluged with silver, and to show that silver has not gone there even in a quantity as large as it did in the 10 years 1863-4 to 1872-3. However it would certainly, in my opinion, have gone in as large quantity, and probably in larger quantity, but for the Bland Bill in 1878 in the United States.

6100. (*Mr. Birch.*) The exports from this country to India you have taken from the India Office returns?—From the India Office excepting the first 10 years, which are taken from the Report on the Depreciation of Silver of 1876.

6101. (*The Chairman.*) That seems to show that of the considerable increase in the production of silver during the last 10 years, compared with the earlier 10 years that you have taken, none of it has gone to India?—No, none of it has gone to India. It has not increased the money in silver countries, that is my point; because India is a country depending on imports and exports for the movements of silver the same as we are for gold. It does not produce anything of any importance in the way of silver. I take the last 14 years and show that the average is less than the 10 years from 1863-4 to 1872-3.

6102. Then you have also taken the gold imports into India in the 10 years 1863-4 to 1872-3 the net imports of gold into India were 52,057,000*l.*, giving a net average gain per annum of 5,206,000*l.*, and in the next 10 years the net imports were 19,761,000*l.*, giving a net average gain per annum of 1,976,000*l.*?—Yes.

6103. Then you have given each of the succeeding years 1883-4, 5,462,000*l.*; 1884-5, 4,672,000*l.*; 1885-6, 2,763,000*l.*; 1886-7, 2,172,000*l.*; showing a net average gain per annum for the 14 years, 1873-4 to 1886-7, of 2,488,000*l.*?—Yes, these figures are official, only I have changed them from rupees.

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6104. (*Mr. Barbour.*) Are those pounds 10 rupees to the £?—Yes.

6105. (*The Chairman.*) The result that you bring out as regards the United Kingdom is that there was a gain in gold between 1866 and 1875 of 50,108,000*l.*?—Yes, that is correct.

6106. And that in the following 11 years, 1876 to 1886, there was a loss of 1,207,000*l.*?—Yes.

6107. Then you say the deficiency of gold in the 11 years, 1876–1886, as compared with the average per annum in the 10 years, 1866–1875, was 56,326,000*l.* By that, I suppose, you mean that if the same gain had gone on during those 11 years as had gone on during the previous 10 years, there would have been 56,326,000*l.* more gold in the country?—In this country, yes; that is the point.

6108. Then as regards India you make the silver gain in the 10 years, 1863–4 to 1872–3, 78,782,000 tens of rupees; and in the 14 years, 1873–4 to 1886–7, 91,551,000 tens of rupees?—Yes, these are correct.

6109. And that the addition in the last 14 years was 17,921,000 less than if it had progressed at the rate of the previous 10 years?—Yes, that is a correct statement.

6110. Then you have made an estimate of the amount of money in circulation in the United Kingdom and India?—Yes.

6111. Taking first the United Kingdom, you take the estimated amount of gold in England in 1876 at 122,368,000*l.*?—Yes, that is correct.

6112. That figure you get from the Report of the Committee on the Depreciation of Silver?—Yes, I do. On the first page of the Appendix.

6113. The Committee do not give it on authority?—It is supplied from the Bank of England; the names of the gentlemen who have drawn up the figures are given.

6114. (*Mr. Barbour.*) It is an estimate?—An estimate of course?—Still we can only go upon what we have. Of course I am not relying upon the accuracy of that. It is a fact to begin upon; the question then is what was added to that or subtracted.

6115. (*The Chairman.*) Does that estimated amount of gold in England include both bullion and coin?—I think it does. The coin and the stock in the Bank of England, consequently that is really coin and bullion as far the currency is concerned. It gives there the quantity of net imports in the year 1875, and that causes me to think that the net imports includes bullion. After all bullion in the Bank of England is potentially, and for all purposes of reserve, coin.

6116. I see it is headed "Estimate of Gold Coinage in Circulation in the United Kingdom." This apparently estimates the addition to the coinage between 1858 and 1872 at about 17,000,000*l.*, and from 1872 to the middle of 1876 at a further sum of 15,000,000*l.*?—Yes, I have not the document before me.

6117. The silver money in circulation you put at 20,000,000*l.* Where do you get that from?—That is also from the Report of the Committee on the Depreciation of Silver in 1876, 19,000,000*l.*, I have not changed that figure.

6118. Then notes in excess of gold in circulation 10,000,000*l.*; where do you get that?—I take that from the statement of the Bank of England—23,000,000*l.* of gold, 24,000,000*l.* of notes. The Bank of England practically has only a very small amount of notes issued without gold against them. The Scotch Banks have got about 3,000,000*l.*, the Irish Banks about 4,000,000*l.*, and Provincial Banks 1,000,000*l.* or 2,000,000*l.* There are not more than 10,000,000*l.* now, but they vary a great deal. The Bank of England can by law issue 15,000,000*l.* without any gold being held against this amount. I am taking this as the statement now, there is not much more than 10,000,000*l.* of notes in circulation for which no gold is held.

6119. Then you deduct 26,400,000*l.* for 11 years' consumption in the arts, &c., and loss by net exports

1,200,000*l.* You assume that during the last 11 years there has been something like 2,500,000*l.* consumed annually in the arts?—That statement is taken from the Appendix to the Third Report of the Commission on the Depression of Trade.

6120. That 2,500,000*l.* of coin that was in circulation has been converted into articles of ornament and jewellery?—That is so. It is 2,400,000*l.* that is put in the Report of the Commission on the Depression of Trade, from Dr. Soetbeer's calculation.

6121. (*Mr. Barbour.*) Do you take it all to be coin or bullion?—I am dealing with the quantity merely of gold, and I do not place any importance on the distinction between coin and bullion, because for currency purposes they are interchangeable.

6122. (*The Chairman.*) If your figures are correct it must have been from actual coin, because we were actually exporting gold from this country, and therefore, it must, according to you, have come out of the coinage?—No, not necessarily, because we were importing gold bullion all the time, in fact we are always doing so, but we were exporting more gold coin or bullion than we were importing of gold. Thus we are consuming our stock of gold money.

6123. Then you arrive at the conclusion that the total money in circulation is now 124,768,000*l.*, so that there is actually less gold in circulation now than there was in 1876?—Of course there must be less because we have consumed 24,000,000*l.* at least in 10 years in the arts, and we have received none. In 11 years we have consumed 26,400,000*l.* on that estimate. Of course, you understand these figures are not estimates of mine, but I am showing the movement on some general basis. I took this figure of 122,368,000*l.* from the report because I thought it was coin and bullion. I see I am mistaken on that point. Still that does not alter the fact that there is some very wide ratio. There are 26,400,000*l.* that we did not get in 11 years; whether the stock of gold in 1876 was 122,000,000*l.*, or 135,000,000*l.*, which would be a fair estimate including bullion, and we have taken out 26,000,000*l.* sterling in the last 11 years.

6124. (*Sir T. Farrer.*) The quantity consumed in the arts is little more than a guess, I think, is it not?—I suppose the Master of the Mint could form a very close opinion on that point.

6125. (*Mr. Fremantle.*) Have you ever seen any estimate made by the Mint or any other public Department in this country?—I have not seen any estimate from the Mint; I have been away for the last 13 months, and only came back the other day, and have not had all the time I should have wished to prepare materials for this examination. I took this from the Report on the Depression of Trade, in Mr. Palgrave's statistics; and the United States Government make an estimate also which, of course, would not be altogether reliable for our purpose, but that estimate is 2,300,000*l.* per annum as the amount consumed in the arts in the United Kingdom.

6126. But in Mr. Palgrave's memorandum, I think he said that it was very difficult to form any opinion as to the consumption of the precious metals in the arts?—Well, he gives Dr. Soetbeer's figures in a table for this country.

6127. In this country he said it was next to impossible?—Well, of course I have simply given that figure as being one that can be criticised by those who put it forward. That does not get rid of the fact that there are 26,000,000*l.*, or some very large amount, to be accounted for in 11 years.

6128. (*The Chairman.*) But would you not expect, if there was this scarcity of gold, that the amount which was used for the purposes of the arts, would be rather diminished?—No; the only way in which it might be diminished would be the fact that people could not afford so much, and it is evident that the investing classes and those having fixed incomes have been both absolutely and relatively enriched by the contraction of the currency. On the other hand, we have an increasing population and a greater tendency

probably for poorer people to use gold instead of silver in ornament. I think, perhaps, the additional tendency to use gold would be counterbalanced by any diminution in the resources of the people to purchase gold ornaments.

6129. Well, then, you estimate that if the gold during the last 11 years had increased in this country to the same extent as it did in the previous period, that there ought to have been in circulation 181,000,000*l.* of money, or would have been, instead of 124,000,000*l.*?—Yes, these are the figures. I may remark, of course, that if that return I started from, 122,368,000*l.*, is wrong, then, of course, it does not vitiate any other figure. This is a question now of additions or diminutions in the stock. I take 122,368,000*l.* as a starting-point. Now, supposing you had 13,000,000*l.* more, making it 135,000,000*l.*, which is perhaps an approximate estimate of the stock of gold coin and bullion in 1876, you still would want much more than 56,000,000*l.* to keep the same relative amount of increase as in the previous 10 years. It does not affect that part of it.

6130. It does not affect it except so far as the increased or diminished per-centage, as compared with the pre-existing stock, may be important?—Exactly.

6131. (*Mr. Birch.*) But how do you imagine that that gold would have come? Gold does not pour down upon us, how would it have come?—It would have come in through the Bank of England.

6132. How would it have come at any period? People would not have sent us gold for nothing; you say we ought to have had it, but surely we ought not to have had it, unless we sent goods or something, commodities to represent it?—That is perfectly true, but commodities will go to represent it. The foreign exchanges will cause the gold to be sent, otherwise gold would fall to a discount in gold money. Supposing now anyone has imported 1,000,000*l.* sterling in gold bullion from some country. He goes to the Bank of England with it and receives for it British legal tender money or its value at 3*l.* 17*s.* 9*d.* per standard ounce. He does not ask if anybody is sending goods or not, he goes and gets the notes or the gold. The Bank of England is bound to take all the gold offered, and give up all the gold demanded, without any choice. I am talking generally; my argument is this, that if our supplies of gold were in any sense normal in the previous 10 years, then we are 56,000,000*l.* short in the last 11 years, and if we were keeping up prices to any just level during the period 1866 to 1875, then we are at a very unjust level now. It is a comparative statement; I am not relying on the figures I start from at all, it is a comparison of changes in the quantity of the stock of gold based on the Board of Trade returns.

6133. (*The Chairman.*) Then you say: "As, however, instead of having 181,000,000*l.* of money in circulation in 1887, we have only about 125,000,000*l.*, we need not be surprised that average prices have fallen from 30 to 35 per cent., seeing that the supply of money that would have been necessary to keep up prices is deficient to the extent of 56,000,000*l.*, which is equivalent to a diminution "in the volume of money of 31 per cent." Now is it your view that there is a direct relation between the volume of money and the price of commodities generally?—It is, certainly.

6134. And that as you contract or expand the volume of the currency prices would rise or fall?—Certainly.

6135. I should like you to explain how in your view that operation comes about?—I will give you an illustration. I do not happen to have the document here, but I know the facts. In 1861 the United States suspended specie payments and adopted the Legal Tender Act and began to issue greenbacks. Now in the debates in Congress at that time there were not more than three or four men out of 300 who believed but what the United States could issue any quantity of greenbacks, and that they still would remain at par

in gold, because the United States signature was attached to them. Well, then, they found at the end of a very brief period that the greenbacks began to fall to a discount in gold.

6136. That is to say, because people had not that perfect confidence in the United States?—The greenbacks were legal tender, the same as gold.

6137. In the United States, but nowhere out of them?—Yes, but if they had issued a limited amount of legal tender paper, gold could not have gone to a premium in greenbacks. That is to say, the greenback went on falling in purchasing power as compared with gold, until for 100 dollars in gold you could get 280 dollars in greenbacks. Now, then, that was due to the issue of more than one and half times the amount of money in the United States that could be kept at par in gold. Instead of having, we will say, a basis of 100 they had a basis of 280. That is an illustration of the exact relation between a much larger amount of money than can be kept at par on the gold standard, and a volume of money of say gold, silver, and paper such as we have, kept at the gold standard.

6138. Yes, that is an illustration of what happens from an excessive issue of inconvertible notes and consequent depreciation of currency; but I should like you to explain, where you have no such feature, where you are dealing simply with a particular standard, such as gold, how the diminution in the volume of gold that there is in this country affects the prices?—Well, in my opinion, the withdrawal of gold comes practically from the money in the hands of the people, that is to say, by far the greater portion of it, and thus prices are correspondingly lowered.

6139. No; but let me put this illustration to you. Supposing that to-day the deposits in the banks or the money which the public have lent to their bankers, for that is the legal relation between them, is greater than it was 10 years ago, so that the amount of cheques which can be drawn upon the bankers is larger than the amount of cheques which could have been drawn 10 years ago. People pay for what they buy by means of a cheque upon their banker, and what they are willing to give is regulated by the balance which they have at their bankers or can put there. Now supposing that that is greater even though there be less gold in the country, why should prices go down?—Well, of course, the quantity of deposits naturally depends on the number of people who have money to deposit. There is an element in this thing, I think, that is not perfectly clear. The money is not the property of the country; it is merely a standard. I will take an illustration. You can carry on all the business of this country with 125,000*l.* if you will divide it small enough; if you will divide it into millionths of a sovereign, each millionth will represent in that system of money about the same ratio to the whole that a farthing now does to the whole. You are going, in my opinion, on an impression that if a man has 40,000*l.* that somehow it is in the bank. He may not have 1,000*l.* in the bank, though he has 40,000*l.* worth of property. This is a mere standard; you may as well speak of the goods in the country, and the yardsticks in the country. Money as a measure is not altogether analogous to a yardstick as a measure, but there is some analogy between the two. A yardstick will measure any quantity of goods, but the goods must be in existence. Money is simply a something in which the property is valued. At the present moment in England there is probably not one-fiftieth part of the money in existence that there is of wealth, probably not one-hundredth part; yet this fractional amount distributes all the wealth, and all values are rated in terms of it.

6140. Quite so; but what I want you to explain is if this is the only function of money, how comes it that 10 per cent. contraction in the amount of that meta will produce 10 per cent. contraction in prices of all the commodities that are measured by it?—Let me take an illustration. I will suppose you have a dozen commodities represented by 100*l.* each, that is 1,200*l.*

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Well, I will suppose now that a number of gentlemen really have a certain amount of money with which to purchase these exact commodities, let us suppose 1,200*l*. We will say that by some process the money is reduced by 10 per cent. That reduces the 1,200*l*. to 1,080*l*., and how are you to get prices up to 1,200*l*. if you have only 1,080*l*. to pay with; how are you to do it?

6141. There can be no doubt if the transactions of the world were carried on by the exchange of the precious metal for the commodities, the diminution of the precious metal must in the same proportion affect the prices of the commodities. But when you suggest that the same operation now goes on, you allow no effect to all the banking expedients, because you say the state of things is now precisely the same as if there were no banking expedients, and the prices are in the same way affected by the contraction or expansion of the precious metals?—In the way of banking expedients from 1866 to 1875 they were probably nearly as extended for all mercantile purposes as they are to-day. Still that is an important subject for consideration, and perfectly reliable information ought to be obtainable regarding it from bankers and others.

6142. I do not think you catch my point. Supposing the banking expedients did exist during that time as much as they do now; they existed then to a large extent, but when you say that prices will vary precisely as the expansion or contraction of the precious metals, you allow nothing at any time for the effect of banking expedients, because you say that the process now is precisely the same as it was if there were no banking expedients, but every transaction were a direct exchange of the precious metal for the commodity?—No, I am not going on that ground, as I am confining myself to the enormous contraction in the volume of money, and to the enormous concurrent fall in prices as accounted for to the extent of about 30 per cent. by the diminished currency, while I regard banking expedients, the varying numbers of employed and unemployed, the increase of population as disturbing elements of secondary importance, while in the present case they offset each other to a great extent. I am going on the ground that we have, assuming a large measure, we will say 10,000,000,000*l*. worth of property in the country. Well, what I maintain is that we do all the exchanges on that with, let us suppose, 125,000,000*l*. of money, we can do it with 12,000,000*l*., one-tenth part of that, if we will only contract the currency down to that amount and make the divisions of money small enough.

6143. But how does the amount of currency, which happens to be in circulation on any particular day or in any year, affect the value of all the commodities which exist and which are measured by money, though people may not be exchanging them, or dealing with them, at the time?—There is a certain number of transactions in the country performed by actual money. Now all this banking in London to my mind has nothing to do with the currency at all, simply because it is done without any money. How can the little money in the bank here—comparatively speaking nearly all locked up permanently—take the Bank of England balance; it does not vary a million or two in ten years. Take the balance of other banks, they are not changing at all. Now what I maintain is this, that there is a certain amount of transactions all over the country done by actual money, retail transactions done by what people carry in their pockets or have in their tills and offices, and payments of wages, and that sort of thing. If you have a certain quantity of money at a given time, then you can distribute that money all over these transactions and pay a certain price, you must pay a certain price. Now then, if we suppose that at that given time there was 10 per cent. less money available while the same transactions in actual money were to be carried out, it is perfectly certain that these transactions can only be carried out if the prices are 10 per cent. lower than in the former case. The whole principle of money goes on the ground that whatever money is in the country will be

distributed over the whole transactions of the country in actual money.

6144. But are not those transactions in which money is actually used, namely, retail transactions and the payment of wages, just those in which prices have been least affected?—That is perfectly true, they are those in which prices have been most slowly affected.

6145. Then on your hypothesis ought not they to be those which ought to have been most and earliest affected, and the wholesale prices to have been later and less affected?—The wholesale prices of most commodities are changing every day. Supply and demand are surprisingly active in producing daily and hourly changes of price, and speculation is also an important element in making wholesale prices. Retail prices follow these changes very slowly, and only when some, not merely temporary, rise or fall takes place in prices per pound, per hundredweight, or per ton, sufficient to enable changes of retail prices per ounce, 4 ounces, 8 ounces, or per pound, or in cheaper articles per hundredweight or per ton. If retail prices continue high while the volume of money is contracting the demand of the public, and thus of the retail dealers, will fall off, and wholesale prices will fall. If a high wholesale price is due to speculation and there is not a corresponding volume of money to sustain that price, the price will, as soon as the abnormal demand of the speculators ceases, fall to a lower level, because the quantity of money will not admit of such a high range of prices. Now I have said before that there are conventional prices, high in wealthy neighbourhoods, low in poor neighbourhoods; consequently there are certain wholesale prices that are determined by the prices that the people have the money to pay in their retail purchases, and consequently everything tends to be affected by the quantity of money that there is to cover these retail transactions and the current money transactions wherever money is used. In fact, how can it be otherwise?

6146. Well, it might be otherwise in this way, that some people think that the chief function of money is as a measure of the relative value of commodities one against another?—It serves as a standard of measure in that sense, but it only serves thus by the total available money being spread over the actual transactions performed by money. It is not an independent and unvarying measure, the measure consists in the changing ratio between the available money and the transactions actually carried out by that money. So that in transactions with actual money or without it, money is a measure of value, but it becomes a measure of value only by being a medium of exchange in transactions in which actual money is used.

6147. (*Sir T. Farrer.*) Do retail prices as a matter of fact follow wholesale prices, or do wholesale prices follow retail prices?—Well, I do not say that retail prices follow closely, but I will say this. Take the case of a baker in a time of contraction of currency, after a time the 4 lb. loaf falls from 6*d*. to 5½*d*. or 5*d*., but I do not say that it immediately accommodates itself. So far as money is concerned retail prices follow wholesale prices; but it is the inability of the public to find the money to pay high prices, the amount of money not being in existence, that causes a diminution in demand and wholesale prices to fall to a lower level, so that the same amount of goods as formerly may be paid for with the smaller amount of money. So far as supply and demand of commodities on markets are concerned, with which I am not dealing at all, retail prices follow wholesale prices; but so far as the money question is concerned any change must come through a money source.

6148. Then for the effect of money upon prices we must look to retail transactions?—I think so, because though there is only one standard of wholesale prices, while retail prices for the same articles vary according to the locality of shops and other conditions, yet retail transactions are those in which money is actually used, and the demand of those who actually pay money is the final determining element in wholesale

prices, though other causes may lead to temporary changes in prices. Therefore the average wholesale prices of all the principal commodities as modified by their relative quantities, reduced to a single number, at stated intervals, will give the most accurate idea of the rise or fall of average prices produced by changes in the volume of money and by all other disturbing causes.

6149. (*The Chairman.*) You say average prices have fallen so much; if the fall of prices results from the cause that you have suggested, ought there not to have been a certain uniformity in its effect upon all commodities?—Certainly there ought to have been a uniform effect.

6150. But in regard to a considerable number of commodities there has been no fall, and in regard to some others there has been a rise?—I am not dealing with the supply and demand of commodities, changes in quantity or changes of taste, causing people to demand one thing to-day and another thing 12 months hence—I am dealing with this simply as a question of quantity of money and my contention is that you cannot reduce the quantity of money without reducing prices. In the struggle for keeping up a certain average of prices some goods will rise and some will fall from day to day. If some rise out of relation to others it is because there is some additional demand or some diminished supply, and conversely in case of a fall. I am not dealing with that question.

6151. But some witnesses have put this case before us. There has been this fall in prices; therefore they reason *a posteriori* that it has resulted from the diminished supply of gold which was coincident with it. You reason *a priori* that you would expect a diminished supply of gold to produce a fall of prices?—Precisely.

6152. And, therefore, such fall as there has been you attribute on that account to it?—There may be other slight temporary causes, but this is the chief if not the sole permanent cause, and it can be estimated in a rough way. Of course increase of population must be considered and allowed for.

6153. In taking your 181,000,000*l.* you have assumed an increase of gold year by year corresponding with that which took place during the previous period?—Yes.

6154. Well, but supposing there was no increase at all, but the quantity of gold in circulation remained absolutely constant except as regards the demand arising from an increase of population, why should prices be affected at all on your theory?—They would not be affected on my theory; average prices would not.

6155. But, then, according to your view, if the quantity of gold had increased as much during the last 10 years as during the previous period, prices ought considerably to have increased?—Well, perhaps not, because, you see, we had increased populations, and we were reaching out to enterprises in all directions in the world also.

6156. Yes; but from 1876 to 1886 you have not an increase of population that would correspond to the increase of 28,000,000*l.* on 122,000,000*l.*, which is about 15 or 16 per cent. You have said that if we had had that continued supply the total amount which ought to have been in circulation is 181,000,000*l.* Instead of that we have only 125,000,000*l.*, therefore we need not be surprised that average prices have fallen 30 to 35 per cent. because the circulation has diminished by 31 per cent. below what it would have been in that case. But surely in that case there ought to have been a rise in prices on your theory?—No, because we take 26,400,000*l.* for the arts out of the current gold, and, taking 122,000,000*l.* as the stock of gold in 1876, and adding to that 20,000,000*l.* of silver money and 10,000,000*l.* of uncovered notes, we have a total amount of money in circulation in 1876 of about 152,000,000*l.*

6157. You have deducted what is used in the arts?—Yes; if you begin at this fixed figure of 122,000,000*l.* of gold, and add the amount which would have been

over and above the supply for the arts, and add the silver money and the notes in circulation, it brings it up to 181,000,000*l.*

6158. That 181,000,000*l.* is the amount that you would have had in circulation?—Yes.

6159. But if you had that in circulation you would have something like 15 or 16 per cent. more gold, and prices ought to have been higher?—They might have been; the probability is that they would not have been higher, because the probability is that we would have had a vast number more people employed to-day than we have now.

6160. According to your theory, how could prices help being higher—putting the increase of population aside,—if you had 181,000,000*l.* of currency in 1887 as compared with 152,000,000*l.* in 1876, your theory is that prices must have been higher; that the two are bound together so that they could not help being higher?—That does not follow. Excuse me one moment. The increase of population from 1874 to 1887 was 4,500,000, and that is about 13 per cent. We have had 13 per cent. increase of population from 1874 to 1887. It is a little longer period; it is 14 years. Of course, you see another point is this. In all probability more people would be employed, and they would be consuming more commodities; that is to be kept in view.

6161. There, of course, you are bringing a fresh element in?—I am. The difficulty is to keep it out when you ask me to consider the case completely. I have not considered all the elements, as my desire has been to consider only the monetary elements, which are the most important by far, and to leave to others to bring forward facts of other classes entering into a complete and final judgment as to all the causes which have contributed to the fall in prices. The population is, however, a considerable element in this case.

6162. (*Mr. Birch.*) In production also?—Yes.

6163. (*The Chairman.*) What I was calling your attention to is this. It is not wonderful that average prices have fallen from 30 to 35 per cent., seeing that the supply of money that would have been necessary to keep up prices is deficient to the extent of 56,000,000*l.*, which is equivalent to a diminution in the volume of money of 31 per cent. Now I do not understand quite how you say that 56,000,000*l.* was necessary to keep up prices to the extent that they were in 1876, seeing that that is more than the proportionate increase which is required by the increase of population?—Well, of course, I am arguing on the general point, that if we were having a fair supply of gold during that period between 1866 and 1875, then we have had to put up with a very enormous diminution in the last 11 years. The following figures, calculated from the index numbers of the *Economist*, will show that even with a gain of 50,000,000*l.* of gold from 1866 to 1875, average prices were lower than in the eight years 1858 to 1865, showing that 50,000,000*l.* were not enough to keep up prices to the level of the eight years 1858 to 1865:—

	Average Index Number.
8 years, 1858 to 1865 -	3,038
10 years, 1866 to 1875 -	2,877
10 years, 1876 to 1885 -	2,419
1886 - - - -	2,023
1887 - - - -	2,059

6164. Now passing to India. The estimated amount of money in circulation in India in 1875 was about 180,000,000 tens of rupees?—Yes.

6165. The deficiency in net imports of silver was 17,921,000 tens of rupees, which leaves 162,079,000 tens of rupees?—Yes.

6166. Now by the deficiency in net imports in silver you mean that there was so much less imported than would have been imported if the previous rate of import had gone on?—Yes.

6167. You say this is roughly about 9 per cent. of diminution, and Mr. O'Connor's estimate of the fall of

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Indian prices is about 10 per cent., though of course this is only approximate. But it is not 9 per cent. of actual diminution, there was actually a large increase of the currency; it is only 9 per cent. less than it would have been if the large increase that had been going on before had continued?—That is what I mean, but still in the face of large amounts of silver being added to the currency, Indian prices did not rise, because there was not enough added to keep up prices. If you will look back to the previous page of my memorandum you will see that during the last three years the import of silver into India has increased beyond the average. It has gone to 8,000,000 tens of rupees. That is higher than the average of the previous ten years, but prices have not risen.

6168. According to your theory they ought to have risen, ought they not?—Population comes in and the general development of railways, and so on, demanding more money. I want to show, nevertheless, taking even this mode of comparison, that it comes nearly exactly to Mr. O'Connor's estimate of the actual fall in prices.

6169. I think the evidence before us shows that prices were stationary and had not fallen?—Well, if you look at the note issued by the Indian Government you will see that it shows distinctly that there has been 10 per cent. of fall of prices in India, and a further fall of 20 per cent. in the Exchange.

6170. Is that 10 per cent. of silver prices?—In silver prices, and 20 per cent. more between silver prices and gold prices.

6171. Between what dates?—Between 1873 and 1886. Since the ratio of silver has changed, within the last 12 years.

6172. Then you suggest that if you take 100 as representing the circulation in the United Kingdom and India in the period 1870–4, in 1887 it was reduced to 69 in the United Kingdom, and to 91 in India?—Yes, that is what these figures that I have given would show.

6173. Is it correct to say that in one case 100 and in the other 91 fairly represents the facts when there was actually more in the later period than the former, unless you say that the increase was not proportionate to the increase in the population?—I take 100 as a standard of quantity, and contend that the figures of the net imports of silver into India show that there was not enough to maintain 100, but that there was enough to keep the standard at 91, while the Indian Government declares that prices during the period have fallen from a standard of 100 to a standard of 90.

6174. But India did get the silver, though not so much as she did before?—17,000,000 tens of rupees less, I show; this would account for 9 per cent. of a fall if these figures are correct. I am stating the official figure when I state this 17,000,000 tens of rupees of a deficiency.

6175. (*Sir T. Farrer.*) Surely in making any estimate of this sort you ought to take an estimate not of what has come into a country during a certain period of 10 years, and then another period of 10 years, but what has been the accumulated currency of the country, and what has been the relation to it of the amounts added to it from time to time?—The difficulty, of course, as you will readily see, is to find these statistics. I do not control the British Government nor the Government of India, I only take what they give me, and it is very singular that both Governments should entirely neglect such important questions as the statistics of money and of the precious metals. According to the Report of the Committee on the Depreciation of Silver, it was estimated that 180,000,000 tens of rupees were in the currency of India in 1875 or about that time. The official figures show that in proportion to the period 10 years previously, they did not get the same supply, but they got 17,000,000 tens of rupees less.

6176. (*The Chairman.*) But they were adding it to a pre-existing larger stock?—If I have been adding rapidly to my fortune for several years, and then go

on adding less rapidly, I still am adding to my fortune, and my fortune is larger than it was before?—That is quite true, but if you are adding less rapidly, you are adding a less per-centage. You are diminishing relatively, because, mind you, you are consuming it at the same time. The population is expanding, so that you are really providing additional wants for this money. It might very well be that India did not get enough silver to keep up prices from 1866 to 1875, but comparatively it got less from 1873–4 to 1886–7 than from 1863–4 to 1872–3.

6177. (*Mr. Barbour.*) May I ask if you know how that estimate of 180,000,000 of tens of rupees as the amount of money in circulation in India was obtained, because I may say that, judging from my experience, I think it would be extremely difficult to get even a roughly approximate figure of the circulation in India?—I simply took these official figures as a basis of argument. That is the figure given, I think, by Professor Fawcett.

6178. (*Sir T. Farrer.*) Is it stated on the authority of the Committee on the Depreciation of Silver in 1876? Is it in the report?—I have not looked at it for a long time. These are figures I had previously taken from the Report, where they will be found.

6179. (*The Chairman.*) So that your view is that the quantity of money in England is deficient now as compared with the period of 1870–74 by 31 per cent.?—Yes, that is the point.

6180. (*Sir T. Farrer.*) May I ask you why you took those particular figures of your earlier decade, and why you did not go back, say, to 1820 or the beginning of the century?—Well, of course modern society is on a certain level of consumption, a certain level of wealth, and to go back to 1820 would be to deal with small populations and numerous combinations which do not exist now at all. I am trying rather to get very active periods of life in both cases sufficiently near together, so that the conditions do not vary to any very great extent. And, further, I desire to show immensely varying supplies of gold, which make that metal very unsuited to be a standard of value.

6181. Yes, but you began just at the period when there was a great influx of gold?—Well, that is where the Report on the Depreciation of Silver happens to begin; I just took their figures where they started. I put these eight years to show how the figures in that period stood, but the two tens is what I am comparing, not that eight.

6182. (*The Chairman.*) Your view is that inasmuch as this large sum is annually being taken from the coinage of gold in England for the arts, there must be a further diminution of the currency, and consequently a fall of prices?—Certainly.

6183. Supposing that there was an increase of gold imported into England, and that it was not kept by individuals, but was paid into their bankers, and so there was an increase of gold in the reserve of the Bank of England, what would be the effect of that?—Only this, the increase of gold to be retained by the Bank of England would only bear a certain relation to deposits. They have practically a fixed proportion which the gold must bear to their liabilities. If they increase their deposits of gold to a certain point, they would not themselves keep the whole of the gold on deposit; probably about one third of it, 35 to 40 per cent. they would keep on deposit. They have nothing to do with the balance of gold over and above their normal per-centage of reserve. If there was a large amount of it and they could not lend it, they would lower the rate of discount and drive it abroad.

6184. Then it would go to other countries, and what would come in its place?—Of course goods might come, securities might come.

6185. In that case it leaves the country?—Yes, certainly.

6186. Then when that operation has taken place there would be less currency in the country?—Well, there would not be less currency, because this really

was something that could not pass into the currency, because we are assuming that it could only pass into the currency if every country with a gold currency was getting a similar supply.

6187. Well, but in currency do you include only that which is actually coined, or the bullion which can be coined, as well as that in circulation?—I include that also, of course.

6188. You include that; well, of course it would diminish the currency of the country?—It would not touch the effective currency of the country in my opinion at all.

6189. There would be less gold in this country than there was before?—But then we were going to get too much. I will assume a figure. I will suppose that there was 5,000,000*l.* sterling of gold came into the country. I will suppose that other countries were not receiving a similar amount so as to keep up the gold standard in all countries. 5,000,000*l.* sterling comes into the Bank of England. It becomes a liability. They may say, "We have only to hold 1,750,000*l.* against this 5,000,000*l.* sterling," and they can deal with this 3,250,000*l.* They can deal with it by lowering the rate of discount, because they feel that they want to drive it away. It had not gone into the currency, it had gone into the bank vaults because the bank could not refuse it, and as it could not be absorbed into the currency it had to be exported. If they cannot lend the 3,250,000*l.*, they must get rid of the 5,000,000*l.*, and this they do by lowering the rate of discount and causing it to be exported, so that importation of gold which went into the Bank of England, and could not be used by the Bank but had to be exported under the action of a low rate of discount, did not really touch the effective currency of the country.

6190. According to that, would not you expect a period when you had a superabundance of gold to be marked by a low rate of discount, and a period when you were lacking gold to be marked by a high rate of discount?—I would expect that to occur.

6191. If you look at the rate of discount during the periods you speak of, precisely the opposite is the case?—The average bank rate of discount in 1849, when gold from California was first imported, was 3 per cent., in 1850 it was 2½, in 1851 it was 3, in 1852 it was 2, and in 1853 it was 3½. No such low rates for five years have ever ruled at the Bank. When the currency is being contracted the process is slow, and need not therefore be shown by a conspicuously high rate of discount. Indeed contraction might very well take place without any very perceptible change in the rate of discount. Sudden withdrawals of gold from the banks and from circulation would be inevitably attended by a rise in the rate of discount. It must also be borne in mind that a contracting currency paralyses trade, throws artisans out of employment, and diminishes the demand for discounts. Further, there is a tendency to a lower rate of interest as civilisation progresses, owing to the accumulation of wealth and the greater security of institutions.

6192. Then we have had a great deal too little during the last 10 years, and the rate of interest has been a great deal too low?—It has been below the average of the previous 10 years, not much, except for temporary purposes. But in considering the rate of discount as affected by import or export of gold, it is necessary to take into account the whole of the imports and exports, and not merely the balance between the two. The figures show that the total imports and exports from 1866 to 1875 amounted to 343,200,000*l.*, and from 1876 to 1886, 294,300,000*l.*, so the average rate of discount would not be very materially affected. But the rate of discount has nothing to do with this question of the volume of money distributed over a country. The rate of discount is a temporary question, varying every day, and depends on the quantity of money available at any time for loans, but not in the volume of the circulation over the country.

6193. According to the view you have suggested, it is the one thing which regulated what amount

remained in this country or came into the country at any time?—Prices regulate the quantity that can be absorbed in the country. If there is gold coming into the country and going into other gold countries, that means that you are increasing the quantity of the gold standard in all gold countries. In that case the gold will have a temporary effect on the rate of discount, but the gold once distributed over the circulation and the reserves of the banks, its effect on the rate of discount has entirely ceased, that is when prices have become adjusted to the new gold. If, however, the gold standard is not increasing and we are drawing gold from Paris or New York, as soon as some material importation of gold is made, the Bank of England lowers its rate and out it will flow; if, however, too much flows out, the bank raises its rate and brings the necessary supply back.

6194. (*Sir T. Farrer.*) But do you not say that the quantity of gold regulates prices?—The quantity of money regulates prices; gold being the standard, therefore practically I say gold regulates prices. Gold regulates prices, though paper money and silver also help to make up the gold standard.

6195. (*The Chairman.*) Now with regard to the deficiency of money in the gold countries in 1887, compared to what it was in England during the 10 years 1866–1875, what have you to say?—Well, you see, that in the 11 years 1876 to 1886, the United States have absorbed about 119,000,000*l.* sterling of gold. But what it gained in these last 11 years was 37,000,000*l.* by net import and 82,000,000*l.* by production. Now, but for the fact that America resumed specie payments, we would have had in England here a large amount of this gold.

6196. Have you any estimate of what it was before this addition was made of 119,000,000*l.*?—At the moment I cannot say. There could not have been more than 20,000,000*l.* or 30,000,000*l.* sterling at the outside.

6197. (*Mr. Birch.*) You said just now that if it had not been for what happened in America a very large amount of that gold would have come to the Bank of England?—Yes.

6198. Then you said directly the Bank of England got a certain amount of gold it took means to get rid of it?—These statements are perfectly reconcilable. I maintain this that, if you have a large amount of gold being produced in the world from new mines like California and Australia, every gold country must come to the gold level. England, France, the United States, and other gold standard countries must take the gold, otherwise you would have in England, France, and other countries gold at a large premium, say 10, 15, or 20 per cent. as compared with gold in the country of the new mines, or more properly it would in the latter be at a large discount. That is an impossibility, except very temporarily and in places remote from mints and refiners of gold, consequently I say that when gold comes in large enough quantity to enter into the currencies of the different gold countries, then the Bank of England does not drive it abroad, indeed it cannot, and for this reason, all prices rise from the effect of the gold, and the gold must remain for this purpose of keeping up these higher prices. But when 1,000,000*l.* or 2,000,000*l.* comes over to the Bank of England or 3,000,000*l.* or 4,000,000*l.*, and there is no demand for it to pass into circulation, prices being stationary or declining, then the gold standard is not being increased over the world, the gold cannot be employed, and it becomes necessary to drive it out by lowering the rate of discount.

6199. (*The Chairman.*) Then there was silver absorbed during those 11 years in the United States to the amount of 74,800,000*l.*?—They are the actual figures of the United States, the net imports and the production. I am not dealing now with any mere estimate, I am dealing with the actual figures as given in the official returns. There is 119,000,000*l.* of gold which is what they have absorbed. I will suppose that they would have probably con-

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sumed 25,000,000*l.*, probably 30,000,000*l.* sterling in the arts in the time, but there would have been 89,000,000*l.* sterling of gold, which had they not resumed specie payments they would not have required or only a small amount of it. They would have had no use for that, and it naturally would have come to England and the other gold standard countries. The previous 10 years they had no use for the gold, except in California and for paying the interest on their debt, and we got it, France got it, and the other gold countries got it. Now America not only absorbed all its own production in the 11 years, 80,000,000*l.* sterling, but it imported 37,000,000*l.* sterling from ourselves, France, Italy, and other countries, wherever the gold was to be found; whereas 10 years ago the United States made no such demand; and Germany made no such demand. I take these two figures of Germany and the United States. Taking the German addition, there is alone a demand of 80,000,000*l.* sterling, and adding that to the demand of the United States of 119,000,000*l.*, you find that Germany and the United States have absorbed 200,000,000*l.* sterling that otherwise would have been largely available for, and must have gone into, the gold coinages of the gold countries.

6200. But taking the United States from 1875 to 1885 there has been a very large increase in the volume of the currency?—A very large increase.

6201. And there has been a large fall in prices between 1875 and 1885. How do you account for that on your theory?—The fact is this, they have a very largely increasing population. In England and the Continent of Europe we are dealing with a population with a fair amount of natural increase and with a diminution by emigration, they are dealing with a population with a very large amount of natural increase, which is greatly increased by immigration. Then they have immense developments going on in the country, immense development of railways, immense settlements in the West, even in the last 10 years these have been something enormous, consequently they want money to keep them on this gold basis. On the other hand a large accumulation of gold has taken place in the Treasury, which practically is withdrawn from the circulation.

6202. (*Mr. Barbour.*) Has there been a reduction of the paper simultaneously with this increase of gold; has there been any reduction in the greenback and other paper circulation?—There has been some reduction in bank notes, not in greenbacks. The United States Treasury holds of this gold coin and bullion about 46,000,000*l.* I am not dealing with money in circulation in America. They have absorbed this gold that otherwise would have gone to the gold countries, and in the previous ten years did go to the gold countries, and we got 5,000,000*l.* sterling a year, as our share of the gold production of the world.

6203. I understand that the gold in America is largely used to cover the paper circulation which was previously uncovered?—Yes, it was inconvertible up to 1879—346,000,000 of dollars were inconvertible, but since 1879 greenbacks are convertible into gold, and the Treasury holds 46,000,000*l.* of gold to pay interest on its debt, and to provide for the convertibility of the greenbacks.

6204. (*The Chairman.*) Your estimate of coin circulating in the United States on the 1st July 1886 is 109,664,000*l.* of gold, and 61,757,000*l.* of silver?—Excuse me, I say in the Treasury the gold is only 46,000,000*l.* The total gold in the country was 99,000,000*l.*, but in the Treasury it was only 46,000,000*l.* What I want to point out is that the United States in these 11 years absorbed 119,000,000*l.* sterling of gold, and Germany absorbed 80,000,000*l.* or 90,000,000*l.* of gold. That makes 200,000,000*l.* sterling of gold, that, but for the resumption of specie payments in the United States, and Germany passing on to the single gold standard, would have gone to swell the currency in the gold countries. Of course there is Norway and Sweden, the Netherlands, Denmark, and Italy; they have taken gold, but I find

these two figures alone amount to 200,000,000*l.*, so that the demand has been greater than this.

6205. How do you account for the fact that if the United States absorbed in these 11 years 119,000,000*l.* and had already some stock to start with, all that they possess at the end, taking the higher estimate, is 109,000,000*l.*?—Of course the supply for the arts has got to come out of that 119,000,000*l.*

6206. You include there the total addition for all purposes?—Yes. I should have deducted the amount used in the arts from that, still that is the gold absorbed.

6207. That would show, according to your estimate, that there would only appear to be 1,000,000*l.* a year in the United States applied for the purposes of the arts?—About 2,000,000*l.* a year is the estimate.

6208. You are supposing them to have started with 20,000,000*l.*?—That is about their estimate. On June 30, 1875, 110,000,000 dollars, according to their statistical abstract.

6209. Now we will pass to the observations that you have to make about the practicability of bimetallism? Taking from the Report of the Committee on the Depreciation of Silver the official figures of the French coinage, it appears that in every year from 1795 to 1875, except 1860, silver was tendered at the French Mint for coinage into five franc pieces; that in every year from 1803 to 1875 gold was tendered at the Mint for coinage on the basis of 1 to 15½, with the exception of 1872 and 1873, when specie payments were suspended, so that this proves conclusively, in my opinion, that gold and silver every year were tendered at the French Mint at this price of 1 to 15½; consequently there was in France no variation whatever in the ratio of 1 to 15½ in so far as money was concerned.

6210. (*Mr. Birch.*) Several statements have been made in regard to this, and this book is M. Chevalier's "Treatise on Gold," published in 1859, and translated by Cobden. It is almost as good evidence as to the real state of affairs as any can be, and in Chapter 2 he says:—

"Whilst in France the coinage of gold takes this unexampled development, the like process with regard to silver is diminishing, and bids fair to cease altogether. . . . During the eight years terminating the 31st December 1857, the coinage has only amounted to 323,660,000 francs, or a yearly average of 40,457,000 francs (1,618,280*l.*). It should, moreover, be observed that the coinage of silver during the latter years has only taken place in consequence of the great influence exerted in that respect by the Government upon the directors of the mints. Left to themselves, they would not, perhaps, have struck a single 5 franc piece since 1853.

"Not only is much less silver money coined, but even that which the country possessed has been rapidly disappearing. The Custom House returns afford upon this subject only proximate indications, as the declarations are not always exact, though they nevertheless must be taken for authority. Formerly, France imported much more of silver commodities than she exported. It appears from a report made in 1839 to a commission on the currency, over which M. Thénard presided, that during the period from the 1st January 1816 to the 1st January 1839, the excess of the importation of silver over the exportation amounted to 1,822,824,818 francs (72,912,992*l.*). Nearly the same proportions were preserved until 1851 inclusively; but then commenced an inverse movement which gathered strength every year.

"In 1852 the exportation surpassed the importation by 2,700,000 francs (108,000*l.*). . . . From the 1st January 1852 to the 1st January 1858, the total excess of exportations over importations amounted to 1,127 millions (45,080,000*l.*), which would be about two fifths of the silver money possessed by France a few years since. . . . There are not two ways; there is only one way of explaining these facts; gold is imported into France in masses, and takes the place in the circulation formerly filled

by silver, which disappears, because it is profitable to come from abroad to barter gold for silver on the footing of one kilogramme of the former for $15\frac{1}{2}$ of the latter, the proportion established in the French currency.

"The merchant possessing ingots of gold has only to carry them to the Mint to obtain the same amount in pieces of 10 francs or 20 francs, weight for weight, and fineness for fineness, save only the small charge to cover the expense of coining. In this way every kilogramme of gold introduced into France enters into the circulation on the footing just described of an equality with $15\frac{1}{2}$ kilogrammes of silver. The creditor is obliged to take it in discharge of his claim on that basis.

"From the very fact of the parallel circulation of gold and silver, on the footing of one of the former to $15\frac{1}{2}$ of the latter, it is easy to withdraw the silver coins from circulation, and export them, giving gold in exchange. From the moment that numbers of persons devote their time and capital to the carrying out of this substitution, we must conclude that it is a profitable trade, for, if the relation of 1 to $15\frac{1}{2}$ were not advantageous for the holders of gold, they would take good care not to carry on the operation upon the large scale on which they have proceeded.

"Chapter 4. . . . We know that what is now to be seen taking place in silver occurred a few years previously in gold. Gold was at a premium in the French market; at the same time that the coinage of this metal had fallen to an insignificant sum, and the amount which had been in circulation in France was escaping abroad. The returns of the Custom House show that from the 1st January 1816 to the 1st January 1839 the exportation of gold exceeded the importation by 541,000,000 francs (21,640,000*l.*) without counting that which travellers carried with them. During this period the relative value of gold remained nearly fixed at $15\frac{3}{4}$ times that of silver, instead of the proportion of $15\frac{1}{2}$, indicated by the law of the 7 Germinal, year 11. Now $15\frac{3}{4}$ in relation to $15\frac{1}{2}$ represents only a deviation of $1\frac{1}{2}$ per cent. Such a slight divergence from the legal proportion sufficed, however, to cause the disappearance of gold from the circulation, and to lead to the exportation of the larger portion of it." This proves how small a difference suffices to effect the displacement of the precious metals?—These passages only show this, that when under bimetallism you have a very large amount of gold passing into a currency naturally there is not likely to be much silver offered at the Mint, as there is the highest probability that the excessive importation of gold will be accompanied by an export of silver. I showed that in two years 1859–60 the French Mint coined 45,000,000*l.* sterling of gold. Well, of course, France could not take up 45,000,000*l.* sterling on its bimetallic standard; it probably exported 22,000,000*l.* of silver; and thus, while it absorbed 45,000,000*l.* of gold, it only added perhaps 23,000,000*l.* to its bimetallic standard of money. Then I showed that in 1860 no silver was tendered for coinage into five-franc pieces, and I accounted for that by stating that the large additions of gold to the French currency could only be made by exporting silver, and this was why in 1860 no silver was tendered at the Mint. I wish to say in regard to the passages read from the volume by M. Chevalier "On the probable Fall in the Purchasing Power of Gold," that in the "Revue des Deux Mondes" of April 1st and August 1st 1876, M. Chevalier turned round and proposed to demonetise silver for the same reasons as he proposed in the volume from which Mr. Birch has read to demonetise gold. This book is written with the view to show the extraordinary dangers of enormous quantities of gold being produced and passing into the currencies of the gold countries. He was an eminent economist; but as a matter of fact, within 18 years after vehemently insisting on the demonetisation of gold he turned round and as vehemently urged the demonetisation of silver.

6211. (*The Chairman.*) Why should they have

been coining at that time so much gold and so little silver?—This is the whole theory of bimetallism, that France had to take all the gold offered from California and Australia, in whatever quantity, and had to give out silver, which is what Chevalier describes. Silver was bound to disappear when France alone in Europe, you may say, was holding this ratio 1 to $15\frac{1}{2}$. It is very natural to suppose that there was a tremendous pressure, as was proved by the enormous import of gold during those years 1859 and 1860. France took 45,000,000*l.* in two years, while from 1858 to 1865 we only got 29,000,000*l.* altogether. I quote from the official figures to show that in two years alone France took 45,000,000*l.* of sterling into its currency, simply because if the export of silver was probably 20,000,000*l.* sterling, then that helped to diminish the standard of money, because instead of adding 45,000,000*l.* they only added 25,000,000*l.*; 20,000,000*l.* having been drained away to India and the East. If 45,000,000*l.* could be taken into French currency, it could only be so by an immense addition to French prices; the consequence was that as gold and silver were at 1 to $15\frac{1}{2}$ in France, then this bimetallic standard would naturally have increased in quantity so much above the Indian silver standard that silver would begin in India to have a much larger value than in France, and so silver flowed to the East to raise prices there, so that silver prices might correspond to the increased bimetallic prices in France. Thus gold took the place of silver in the French currency, and the amount of gold thus substituted had no influence whatever on the currencies of the gold standard countries, because it was a substitution, and not an addition to the currency. But for the existence of French bimetallism all the gold must have gone into the currencies of the gold countries, and must have raised prices in these countries to a much higher level than they did actually reach.

6212. Then you say that in 1876 the cash reserves of the Bank of France amounted to 53,960,000*l.* in gold and 22,000,000*l.* in silver?—Yes. As at the time that France suspended the coinage of silver the Bank of France had only 22,000,000*l.* sterling of silver and had 53,000,000*l.* sterling of gold, it was consequently not the pressure of an enormous amount of silver in the Bank of France that caused it to suspend the coinage of silver, it was simply the financial and political consideration that it did not want Germany to draw away its gold.

6213. 1876 was not the date, was it, of the suspension of free mintage; I thought it was earlier than that?—It was 1874. These figures are taken from the Report of the Committee on the Depreciation of Silver.

6214. Yes, but do you know what the amounts were in 1874?—They are given there.

6215. (*Sir T. Farrer.*) Can you say why they did not wish Germany to take away their gold?—Because they naturally said: "We do not want to encourage any country to pass on to the single gold standard by drawing away this 53,000,000*l.*, or any other large quantity of gold, and giving us silver. We are willing to hold the double standard so long as other countries behave decently to us." They did not want to co-operate in any such scheme. I think that is a very valid reason, particularly as with Germany they had a very strong patriotic motive.

6216. They submitted very quietly to receive gold instead of silver, why was it that they would not receive silver instead of gold?—Because they felt that while they were anxious that other countries like England and Germany and the United States should become double standard countries like themselves, they did not want to allow themselves to be unjustly taken advantage of. When Germany decided that it should have a gold standard the French Government did not want Germany to come to France and take away gold, and when somebody else decided to have a silver standard that they should come to France and take away silver. They did not want other countries to change their currencies when they pleased, throwing

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upon France the derangement of the French currency and the expense of frequent recoinage at the option of other countries. France was being treated as the mere reservoir of precious metals for the convenience of other nations, and it resented this abuse by suspending the free coinage of silver, and thus depriving Germany of the opportunity of taking away French gold in exchange for the silver of Germany.

6217. (*The Chairman.*) Why would it have been at their expense?—Suppose Germany had drawn away from the Bank of France 30,000,000*l.* of gold, France would have had to coin more silver, and they said, "What is the use of permitting our currency to be raided upon in this fashion?" They would require to have given up 30,000,000*l.* of gold and to have recoined 30,000,000*l.* of silver, which would have come to them in the form of bullion or German silver money. It compelled them to recoin it. Well, then, they said, "We do not want our currency to be raided upon in this way."

6218. Why was it that they accepted the change when the change was from gold to silver, and would not accept it when it was from silver to gold?—It was hardly from monetary considerations; it was a question of politics, though I think it will be conceded that France might very well refuse to continue to be the victim of the currency changes of all other countries, when it was completely in its power to do so.

6219. (*Mr. Chaplin.*) Were they offered the silver in the same quantities that they were offered the gold?—Germany began to sell its silver for gold, and France began to have its gold drained away and the silver from Germany substituted.

6220. I want to ask if you can tell us at all whether, in those years, 1859 and 1860, there was an extraordinary quantity of gold offered for coinage, and was coined in France?—Yes, a very extraordinary quantity.

6221. Was there anything like the same amount of silver at that time; had they the opportunity of coining the same amount of silver if they had wished it?—There was no abnormal amount of silver being produced, but the French Mint was bound to coin whatever gold or silver might be offered.

6222. (*Sir T. Farrer.*) They were saturated with silver; gold became cheaper, gold came in and drove out the silver, and silver went to India. So that they submitted, but when the converse operation came about and silver offered itself as the cheaper metal, and gold was to be taken away, they would not submit to that.

6223. (*Mr. Chaplin.*) I understood that in 1859 and 1860 they coined 45,000,000*l.* of gold, an abnormally unusual quantity, and that to that process they submitted very quietly. What I understood was that they submitted to lose their silver, perhaps they had no choice?—They had no choice under their bimetallic law, but M. Chevalier wrote his book in 1858 for the purpose of showing that gold was so certain to be produced in the future in enormous quantities, and that those gigantic supplies would so raise prices as to bring ruin and disaster on France, that he urged upon the French Government the imperative necessity of demonetising gold.

6224. They might have put an end to their bimetallic system?—They might, but they did not.

6225. (*Mr. Barbour.*) You have been asked how it happened that the French allowed all their silver to pass away and gold to take its place, but would not allow gold to pass away and silver to take its place. Was there not this difference in the two cases, that in the first instance the influx of gold came from a natural cause, and in the case of the influx of silver it was an artificial cause, mainly the act of Germany, which had recently been at war with France?—There was no political motive in the first instance; there was a very strong political motive in the second instance.

6226. Are you aware that in the beginning of the century France allowed her gold to pass away and

silver to take its place, or have you no information on that point?—I have no information on that point, except the statistics on the subject in the Report on the Depreciation of Silver.

6227. I will read you an extract from a report of the Minister of Finance of France in 1803, showing what the state of affairs was at that date: "Gold coins compose about a third of our specie. They are the principal instrument of our interior commerce. It is admitted that breadstuffs, cattle, and almost all the bulky objects of consumption disseminated throughout all parts of the Republic, and which are gathered together for the provisioning of our cities, of the army, and of the seaports, are in the first instance purchased with gold." Does not that show that there was a large amount of gold in actual circulation in France in 1803?—Yes, it probably does.

6228. I will read you an extract from the evidence taken before the Committee for Coin at the Board of Trade on April the 26th, 1828. Alexander Baring, Esq., M.P., afterwards Lord Ashburton:—"The variation in France is seldom above a tenth per cent.; it sometimes runs up to a quarter per cent. It has been, I am told, something higher on particular occasions; when the Bank of England was running all over the Continent for gold. This was the case, I believe also, at another time for the service of the Peninsula; now and then, from casual circumstances, one metal gets preferred. If Russia goes to war in a distant part, she does it always with gold. At the present time gold has been bought up to a large extent for this purpose." This evidence was given in 1828, and shows that gold had become scarcer at that time than in 1803?—Well, I would not draw that inference.

6229. It was not so common in circulation?—No.

6230. Then I will read you an extract from the evidence given by N. M. Rothschild, Esq., before the Committee on Bank of England Charter on 24th July 1832:—"Q. 4833. Has there been a great export of gold from France at different times for the purposes of foreign war?—A. Certainly; in general the gold is bought up in France before it goes from this country, and if there is a scarcity in France then it is fetched from here. Q. 4834. Does the demand for gold from France produce a scarcity of money in France?—A. No. Q. 4835. Why is that?—A. Because the gold is, in general, in private hands; it is merchandise there." Does not this extract show that in 1832 gold had disappeared from the ordinary circulation in France?—Well, I cannot say. The statement there made is that when Russia goes to war she demands gold. It is perfectly true, but nevertheless, although in 1832 France lost by export about 1,600,000*l.* of gold, it gained by import in 1830, 1831, and 1833 about 1,800,000*l.*, and it coined in the five years 1830 to 1834 about 5,000,000*l.* of gold. The total imports, however, from 1815 to 1836 were about 15,800,000*l.*, and the total exports about 16,400,000, so that France really lost in that time by excess of exports about 600,000*l.* of gold.

6231. What I wish to ask you is this, do not these extracts beginning with the report of the French Minister in 1803 to the effect that one third of the specie was gold coin, and that all the breadstuffs were purchased with gold and ending with the evidence of Mr. Rothschild show that there had been a drain of gold from France, and that she had submitted to that drain without altering the laws regulating her currency?—Yes.

6232. In other words, she had allowed gold to go and silver to take its place between 1803 and 1832?—Yes, that appears to be perfectly correct according to these extracts, but the total amount of net export of gold from 1815 to 1836 was, according to French official figures, quite insignificant.

6233. (*The Chairman.*) From 1803 down to the present time has the banking and commercial business of France been carried on in gold and silver money indiscriminately in your view?—Yes, certainly it has.

6234. Both gold and silver, each of them being at times at a premium?—For export, not in money. If either had been at a premium in money, there must have been two prices in France, a silver and a gold price for all articles. Now, in the first place, the French law makes it criminal to act on the basis of premium or discount. It always did so, and consequently any one depositing money in a bank in France, say, 100,000 francs, he might get silver, gold, or paper when he wanted the money, but he got 100,000 francs, neither more nor less. There may, however, have been a premium on silver, either bullion or coin, for export to India, and the premium might for a time be considerable if there was an excessive demand for export, as silver could not always be easily got in France, all banks and other payers having the option of paying in gold or in silver. There was doubtless also under bimetallism a premium on gold. But this premium was a question for the bullion dealer; it in no way affected the money affairs of the French people. I might instance business in China. I have seen in Shanghai, when silver was scarce, and everybody wanted it, the price of silver as expressed in the sterling exchange on London of the Shanghai tael rise 10 per cent. in a month. When there had been changes, before telegraphs and before steamers, in the available silver in India and China silver would immediately bear a premium for export from Europe; but the question is this, where is the example of any bank in France that received money, gold or silver on deposit, having proposed to pay out either more or less than the exact amount in figures deposited? Where is the transaction where any merchant has paid more or less than legal tender money, and more or less than the exact amount due. Of course, silver must be driven out of the currency when gold flows in in large quantity; silver must be driven out of the currency by some process, and it is done by a premium on export, that is, by a rise in the foreign exchanges with silver countries. A similar process goes on with gold in England. A sovereign is always a sovereign in London, but the exchange value of a sovereign in London payable in New York in gold dollars changes in London in dollars from day to day, and similarly a 20-dollar gold piece in New York as valued in sovereigns in London changes from time to time. This is the only way in which the exchanges can be regulated; by a rise or fall in the foreign exchanges gold will flow from or flow to a country, so that we have with our gold exactly the same conditions operating as the French had with their silver, only that then the changes in our gold that cause it to flow out or flow in are shown in the foreign discount or the foreign premium on the exchanges. Similarly in foreign countries changes in their gold are shown by changes in the rate of exchange on London.

6235. I believe you have some observations to make with regard to Professor Jevons's views?—Jevons has been regarded in England here as the leading authority on this question, and Bagehot accepted and argued upon his views in regard to bimetallism. Now my contention is that Jevons did not understand this question, and his diagrams do not show anything in regard to bimetallism whatever.

6236. (*Sir. T. Farrer.*) Which book of Jevons is this?—"Money and the Mechanism of Exchange."

6237. (*The Chairman.*) Will you quote the passage?—The passage is that "the standard of value always follows the metal which falls in value" (p. 138), and "At any moment the standard of value is doubtless one metal or the other, and not both; yet the fact that there is an alternative tends to make each vary much less than it would otherwise" (p. 139). What I contend is that this is a mere theory, and is not in any way borne out by the official figures which I have presented in regard to the French currency and the Bank of France. During the period from 1795 till to-day the French standard never was a purely gold or silver standard, as Jevons's theory would imply, but it was a standard of the two metals in some proportion, in varying proportions, depending upon whether gold or

silver might be flowing into the French Mint, or was being drained away by foreign countries. But he treats here upon a theory, and builds upon that theory a set of diagrams, so that his diagrams and his argument have been very widely accepted as settling the question. Now I say it does not settle it at all, his diagrams and his arguments do not apply to bimetallism, as I have shown by authentic facts and figures in the case of France. I have not got the book, but I can draw the diagrams if any one cares to see them.

6238. What do you say the diagrams are inserted by Professor Jevons to show?—To show the action of bimetallism; but he assumes that under bimetallism gold and silver vary in regard to each other, which would require that there should have been in France a gold price and a silver price for every article, whereas I have shown that in France they have not varied as money from 1795 to the present day, and that there have not been two prices for articles.

6239. With reference to the argument that gold cannot have appreciated because money is so cheap, what have you to say?—Well, I maintain that the rate of discount is no permanent indication as to the quantity of money in a country, and therefore it is no indication as to the range of prices. Prices may be high or low with a high rate of discount or a low rate of discount. There is no relation between the two except during the period when the change in the quantity of gold is taking place. If we are exporting gold, or if we are importing gold, during that change it would to some extent affect the rate of discount, but it could not affect it permanently.

6240. Of course you would not suggest that all the gold that comes into this country, that is not used for the arts, would be turned into coin; some of it would remain in bullion?—It does so at the bank.

6241. What regulates in your view the amount of gold that is turned into coin?—I suppose the amount that is demanded for the purpose of being paid over the counter of the bank. Of course they do not pay bullion over the counter, that is in payment of cheques. I suppose as long as they find that they have plenty of gold coin in the issue department for probable demands, it is not material for them to send bullion to the Mint. I presume so. Of course I have no experience on the subject. I see no object in coining gold when it may, owing to the demands of foreign countries, have afterwards to be sent abroad as if it were bullion.

6242. That rather leads me to ask, during those years in which you say there was this large excess of imports over exports, which in your view must have been turned into coinage, whether it must not have resulted in people seeking more coinage for some reason or other?—No, they do not seek it; it passes automatically into the currency.

6243. But how could it pass automatically into the currency? The amount that will pass into the currency will depend upon the amount that people's requirements demand?—No, I cannot agree in that view. The monetary organization of a country like ours provides the method by which all gold available for currency is automatically distributed over the whole country. In a general way the demand for money is equal to the whole of the available money in the country.

6244. I am talking of the amount that is coined as distinguished from what is kept in bullion. I am supposing the stock of gold to remain the same, what would determine how much will remain as bullion, and how much will be turned into coin?—Well, I suppose the individual views of the Directors of the Bank of England, as to whether they were likely to be called upon for more coin than they possessed.

6245. If their judgment was good and sound that would depend upon what people did require and seek for?—Yes, in a certain sense; however, they must keep this gold to suit their liabilities. Their own gold reserves and their own liabilities are the only guide that they attend to; they take no cognizance

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whatever of the amount of gold in circulation outside of the bank.

6246. Yes, but what I mean is, what in your suggestion would have brought about the effect that in a period of 10 years or so people would have required 50,000,000*l.* more of gold coins, as distinguished from bullion?—Of course if it has to be paid across the bank counter for currency purposes it has to be paid in coin. The point is this, the amount in the Bank of England in reality remains almost stationary, there may be a few millions up or down, and the legislation by which the bank directors lower or raise the rate of discount drives out of the bank all surplus gold beyond the reserves to protect their liabilities, either into the circulation in the country or to foreign countries; or on the other hand, draws gold into the country from abroad. This process is really automatic.

6247. (*Mr. Birch.*) It has varied in the 10 years from 20,000,000*l.* to 36,000,000*l.*, you know?—That 36,000,000*l.* is very rare, and could only remain in the bank until the action of the directors themselves reduced it to the normal amount necessary for their reserves.

6248. (*Mr. Fremantle.*) You can hardly say that the coinage remains stationary?—No, the coinage will vary in proportion to the supply of gold and the demand for coin. Will you allow me to make one illustration that will show this; the illustration of the suspension of specie payments in America up to 1879. Why did gold rise to a premium in greenbacks of 180 per cent., that is to say, 100 dollars in gold was the equivalent of 280 dollars in paper money? Prices advanced on the basis of the 280 and not on the basis of the 100. You ask me how it is? I say the banks did not hold this money when it was issued by the United States Government, because they were only holding enough for their liabilities. The country was bound to take this surplus when it was issued, there was no means of refusing, whether it raised prices or whatever it did. That is an illustration of it. They thought in America because the United States Government signed these greenbacks they would remain at par, still they found this premium on gold as expressed in greenbacks went on increasing and increasing until it reached 180. I give that illustration to show how an increase in money did go on raising the paper money standard to 180 per cent. above the gold standard.

6249. (*The Chairman.*) People are only bound to take it there. It is a different measure of value altogether compared with what it is in relation to commodities that people desire from other countries that will not take the greenback?—The thing is exactly the same.

6250. Why surely a man who had a greenback could not induce all the rest of the world, if a large number of greenbacks were issued, to give him goods for the greenback to the same extent as they would give him for gold?—He could go into a bank in New York and get credit for any amount of money, if he would only deposit the equivalent greenbacks. Gold could always be got for greenbacks at the rate of the day.

6251. Yes; but not at the same rate as if he deposited so many pounds sterling?—It is exactly the same, not the same value, but if you deposit 280 dollars in paper you would get 100 dollars in gold. What I want to point out is this, this standard of value in America having changed from the gold standard on the basis of 100 to the paper standard of 280 prices rose to a very large extent. Now, then, I say when they began to contract the paper currency they reduced this 280, and gradually population increased, and thus they brought the currency down to par in gold in 1879. There was an operation produced directly in consequence of increase and diminution in the quantity of money inserted in the currency and withdrawn from it, and what I maintain is this, that prices rose correspondingly, and yet if you look at the banks, the banks had not this money, they only had enough for their liabilities; but when a man went to pay something for which

he had formerly paid five dollars he found he had to pay 14 dollars for it, and therefore he required to have in his pocket for this transaction 14 dollars, though under the gold standard he would only have required five dollars. Why was that? Simply because this standard was one of 280 in paper money against 100 in gold coin, and paper money was the money of the country.

6252. But in that case would you have found the man with so many more dollars in his banking account?—He might or he might not have had.

6253. If all prices had gone up he would probably have 280 dollars where he had 100 before?—No, I beg your pardon, if you had deposited 1,000 dollars in 1861 you would, when the greenback was at 280, have had 1,000 dollars, not 2,800, as you ought to have had if you had been entitled to an equal amount of purchasing power.

6254. That is perfectly true, but when you had all your prices going up there would be some approximation in all respects to an increase in the same proportion?—In prices.

6255. In prices, and therefore in the deposits which people had at their bankers?—Certainly there would be. The bankers went on changing from a gold to a paper basis, but they did not give any man credit for the increase; so that the increased deposits would have been made by those who were making additional profits by the advancing prices, and not by those who had made the deposits before prices began to advance, as the latter deposits would have remained unchanged in figures, though their purchasing power would have diminished by every advance in prices.

6256. But if the same process was going on here in the reverse direction, ought you not to have found that the money that people had at their bankers diminished just in the same way as you find it increased in America?—Well, I dare say there is a diminution. I have not examined it, but I feel almost certain that there must have been a diminution. On the other hand, I ought to explain that while a process of contraction is going on the amount of money people keep at their bankers undergoes no change in figures while it is there, that is 1,000*l.* remains 1,000*l.* with, however, increasing purchasing power. If there is during contraction a diminution of people's money at their bankers, it is caused solely by the withdrawal of deposits, and not by any automatic shrinking in assets or liabilities at the banks, as there is an automatic shrinking in the prices and money values of commodities.

6257. (*Sir T. Farrer.*) One question about the greenbacks. Do you say it was due entirely to the excess of quantity; do you think that the credit of the Northern Government at that time had nothing to do with it?—The excessive quantity of greenbacks in circulation produced a corresponding rise in prices as soon as the greenbacks were distributed over the country. With that, in my opinion, the credit of the Government had nothing to do. The fact is prices are produced automatically, money being forced into the circulation.

6258. (*Mr. Birch.*) What effect had it upon the wage-earning class?—All prices went up enormously.

6259. The wages of the day labourer, did they increase immediately?—Yes, because he had to pay dearer for everything that he used.

6260. Where was the advantage?—No advantage at all.

6261. (*Sir T. Farrer.*) All American securities went down?—That is perfectly true. That was a question, not of quantity of money, but of the credit of the Government.

6262. Paper was a security?—It was money.

6263. Was there any magic about calling it money?—Yes, because it was legal tender. Every man was compelled to take it for the money marked upon it, but he was not compelled to take American Government Bonds in payment of debts. Securities like Consols depend as to their price upon the estimation placed upon the credit of the British Government

the chief consideration being whether we are likely to be involved in wars or in serious political troubles.

6264. (*Sir J. Lubbock.*) Do you not think the apprehension that there might be a further increase had something to do with the fall in value?—Are you speaking of the values of securities or of commodities.

6265. I understood you to lay down the principle that the fall in paper values was entirely due to the increased amount. Sir Thomas Farrer asked you whether you thought the fall of the credit of the American Government had anything to do with it, and you said no. Now I ask you whether you think that the apprehension that the amount might be still further increased had some influence upon the value?—Undoubtedly it had upon the value of securities which is a mental apprehension, as the increased quantity of greenbacks was clearly an indication that would lower the credit of the American Government in the eyes of investors. But prices of commodities in the long run are not mental apprehensions of value, they are the automatic results of the quantity of money as distributed over the business of the country in transactions where money is actually used. Prices of commodities, therefore, would not be in any permanent manner affected by any apprehension that increased amounts of greenbacks might be issued, they would be affected only by the amounts already issued. Taking the illustration of France during the war of 1870–71 and afterwards, it had to pay a much larger rate of interest on its loans during that period when it issued enormous amounts of securities, and thus weakened its credit.

6266. (*The Chairman.*) I will revert to the question of dear gold and low rate of discount. You say that the rate of discount, whether it is low or high, has no relation to the amount of currency in circulation?—It has not.

6267. Now with reference to the appreciation of gold, which you consider has taken place, would you point out what effect it has produced in the relative position of different classes in the country?—Yes. I think that all producers have had to sustain a very great loss; that all parties possessing securities, like Consols, that demand the payment of a certain amount in money and bear a fixed rate of interest, and all annuities and all fixed salaries have immensely benefited.

6268. That is by reason of prices being lower, and therefore the income purchasing more commodities?—Yes, by reason of the wealth of the producing classes having gradually undergone a diminution in its value in figures relative to the wealth of people holding theirs in Consols and other forms of securities.

6269. You have made some calculations, I think, to show your view?—The involuntary transfer of wealth from one class of persons to another class by means of a contracting or expanding currency I call by the name of “mediatization.” Let me illustrate this process by a few examples, and as I have already shown that the contraction of our gold currency in the last 11 or 12 years amounts to more than 30 per cent., I will use 30 per cent. as the fall in prices due solely to currency causes. Taking the National Debt at 740,000,000*l.*, it represents to-day an amount of average commodities that would have taken 1,057,143,000*l.* to purchase before the contraction of the currency began. In the same way, if we take the assets in “figures” to be paid, of the Joint Stock Banks of the United Kingdom at 1,000,000,000*l.*, the present purchasing power of this sum will amount to about 1,428,571,000*l.* of the former purchasing power of money. Take again the railways of the country at 800,000,000*l.*, and $4\frac{1}{4}$ per cent. on an average was paid on this amount in 1884 (I have no later figures at hand). To-day that sum will purchase an amount of average commodities that formerly would have required 1,142,857,000*l.* If these three large items are taken, amounting in all to 2,540,000,000*l.*, in obligations in figures, we find that they now represent a purchasing power which before the contraction of the currency would have required 3,628,000,000*l.*

Thus we have an amount of wealth which has been mediatized into the possession of the owners of these three classes of obligations, and out of the possession of the owners of all kinds of property, and of manufactories and mines, and of the agricultural and productive classes generally, to the amount of 1,088,000,000*l.* If, on the other hand, those obligations had been paid up in India or in a silver currency, the amount mediatized would only have been about 282,000,000*l.*, so that India has suffered but very little in comparison with England, because silver was a juster standard of value than gold.

To take another illustration. The civil services in 1884–85 cost about 18,000,000*l.* This amount will now purchase commodities that before the contraction of the gold currency would have cost 25,714,000*l.*, that is an excess of 7,714,000*l.* This sum of 7,714,000*l.* represents an addition to the burden of the National Debt of 257,133,000*l.*

Let me suppose now that two gentlemen each invested 100,000*l.* in the period 1870–74, but that the one invested in consols and the other bought an estate with a rental from crops corresponding to the purchase money. To-day the owner of the consols has his 100,000*l.* intact, with a purchasing power over commodities as compared with the time he made the investment of 143,000*l.*, and he has his 3,000*l.* a year with an increased purchasing power of 1,290*l.* On the other hand, the owner of the estate could not sell it for 70,000*l.*, and yet if the volume of money had been kept up from 1876 till the present time, as it was from 1866 to 1875, there can be no doubt that his property would, under average circumstances, have been worth 100,000*l.* to-day, and would have been yielding a corresponding rental. This amount of depreciation is due solely to the mediatization produced by a contracting currency, which has given to the owner of the consols part of the value of the other gentleman's estate.

The farmer and the manufacturer have had to accept continually over the last 10 years lower and lower prices for the benefit of the owner of obligations in figures, to whom the farmer, the manufacturer, and the producer generally had to gradually give up their wealth and become themselves impoverished.

A careful investigation of this question would probably show that the mediatization of wealth from the producing classes and those allied with them to the holders of securities and the possessors of mortgages, annuities, fixed incomes, &c. has taken place in the United Kingdom in the last 12 years to at least 2,000,000,000*l.*

6270. (*Sir T. Farrer.*) All due to scarcity of gold?—Yes, all that I have stated is due to the scarcity of gold.

6271. (*The Chairman.*) That 30 per cent. fall arises from taking a number of articles and averaging the fall, but how far that will benefit me, with a fixed income, will depend on the fall in relation to these given articles which I myself use, would it not?—Certainly it would.

6272. Well, now, rent, which is a large item of expenditure, has house rent fallen anything like that amount?—I think relatively materials for building have fallen very greatly. Of course, I do not say that in every case; no one article can be taken as giving any exact average. There will be articles above and below the average prices of commodities.

6273. But is not one very likely to be misled as to the benefit arising to a person with a fixed income by taking an average of that sort, because if the fall has been small in the articles that are much used, and large in the articles that are not so much used, it would give a very false idea of his position, would it not?—Well, still the figures in the “Economist” are of staple commodities. The point is this, that if prices have fallen 30 per cent., then anyone with 1,000*l.* can purchase 43 per cent. more produce with the 1,000*l.* than he could have done before this change between gold and silver. That is my contention. Of course, one man may not be able to do it in his own

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case, but if you take the wholesale commodities he has the command over these commodities to that extent.

6274. (*Sir John Lubbock.*) I think I understood you to say that all producers have suffered a loss of something like 30 per cent.?—Yes, I think so.

6275. I should like to follow that out for a moment. Supposing I am a manufacturer of any kind, and I buy raw material to the extent of 1,000*l.*, I turn that into a manufactured article which I sell for 2,000*l.* The difference of the 1,000*l.*, less my expenses, is the profit I should make upon the operation?—Yes.

6276. Supposing everything has fallen, if the raw material falls to the same extent as the manufactured article falls, the difference remains the same; where is my loss?—Now you are engaged in a business for 11 years; to-day you purchase cotton at a certain price, and you are buying a certain quantity of cotton all the time, and selling a certain quantity of goods all the time.

6277. Now you are supposing a continuous fall; I understood your position was that articles had fallen 30 per cent., and that the consequence of that was that the producers continue to suffer heavy loss?—No, I draw a distinction. When the fall stops and its effects are adjusted they no longer lose, but they may have lost all their capital in the 11 years.

6278. You do not mean to say that the loss is permanent, but it is during the process?—My point is that whatever anyone has lost he has lost permanently. When the fall in prices has adjusted itself, a manufacturer who had originally 100,000*l.* may find that he has only 50,000*l.*, the loss being due entirely to currency changes, not to any other. But if there is no further contraction of the currency, producers will not make any further losses from currency causes, though demand and supply of commodities will continue to act upon prices.

6279. (*The Chairman.*) I believe you have something you desire to say with reference to the India Council Bills?—I take the ground that whereas the India Council Bills are sold here, in reality if the same transaction were being done by a merchant in Calcutta instead of having bills drawn on India, he would remit sterling bills, for which he would in India pay rupees. My contention, therefore, is that the natural order of this operation is to remit sterling, which would not interfere with silver in any way. The only reason why Council Bills show an interference with silver here is this, that where the quantity of bills offered is abnormally large it is exactly the same rule as applies to the Bank of England if the quantity of surplus money is large; the India Council, like the Bank of England, must then take a lower rate. When the India Council wishes to press more bills than the normal quantity that have been offered, and to which the trade between the two countries tends to correspond, when they issue more than usual, then, of course, they must take a lower rate; as the market is not prepared for that additional amount at the same price as before.

6280. And in that case do you say that the silver market is affected?—Temporarily. Instead of sending silver, which they would do, with the normal amount of bills, these additional bills must be sold off; consequently, to a certain extent, bankers and merchants do not send out silver because they remit Council Bills as the India Council takes a lower price.

6281. (*Mr. Birch.*) If the Indian Government bought bills in India and the bills were sent over here people would buy silver and send it over, it is exactly the same thing?—No, I beg your pardon, the difference is this; in the one case there would be a remittance from India of gold bills on London, and these gold bills arriving here would not compete with silver as the Council Bills now do temporarily when they are sold for abnormally large amounts. Silver would not be pressed down by sterling bills arriving from New York or Paris; these would be sterling transactions only; and why, therefore, should Indian gold bills on London have a different effect in London

from the gold bills from the United States and France?

6282. (*Sir L. Mallet.*) It would have the same effect on the trade?—All the effect it has on those prices is temporary. My argument is this, that it has no permanent effect on the trade, although many merchants and bankers in the city believe with Bagehot that if the India Council did not draw so many bills, silver would flow to India in large quantities. I deny that altogether.

6283. (*Mr. Barbour.*) Would it go at a different rate of exchange; assuming that it did not go in large quantities, would the rate of exchange be different?—Not permanently different, the rate of exchange, in my opinion, would be different until this exceptional pressure of bills had ceased or had adjusted itself, but having done so the Indian currency requires a certain amount of silver to keep up prices, and that would flow to India when this abnormal condition had been removed.

6284. (*Sir T. Farrer.*) I understand you to mean that if the India Government ceases to draw bills on this side, and the Government were to remit bills from India, in that case you say there would be no flow of silver to India, there would be no change, it would not affect the trade. But if the Indian Government were to stop drawing bills altogether, because they did not want the money, you do not mean to say that there would be no silver going to India then?—Yes, there would be silver going to India. Silver would go in preference to anything else, because prices must be maintained in India. I am not quite sure that the point I am trying to make is clear. The assertion in London is that when the India Council go on drawing perhaps 2,000,000*l.* sterling more than their former annual drawings, that that fact changes the rate of exchange, and that this is shown they say by the fact that when they advertise a larger amount than usual to be sold, the price goes down. I maintain that the price goes down temporarily only; but it does not interfere permanently with silver flowing to India.

6285. You mean to say that if silver is more valuable in India than it is here, it will go to India, Council bills or no Council bills?—That is my view. If they stop the Council bills or draw an unusual amount of Council bills, that will be adjusted, and silver will still keep flowing in its normal channel.

6286. (*Mr. Birch.*) If we owe a balance to India we have to pay our indebtedness. If we cannot get Council bills we have to send silver or gold?—Or commodities.

6287. (*The Chairman.*) Do you think that bimetallism would be a complete remedy for the evils to which you have called attention?—I think it would not be a complete remedy.

6288. On what grounds?—I have a table here which gives in a general way—of course you understand all those figures are general—certain figures showing how bimetallism would work out at 1 to 15½ and 1 to 21.

Estimated Amount of Money in Circulation.

	1887.	Standard of quantity of money in circulation about 1876, say, 100: fall in 1887 to
Gold Countries - -	£ 900,000,000	69
Silver Countries - -	450,000,000	91
	1,350,000,000	

Bimetallism at 1 to 15½ would give the following figures:—

	1887.	The above figure 69 would rise to	The above figure 91 would fall to
Gold Countries -	£ 987,250,000	75½	—
Silver Countries -	362,750,000	—	75½
	1,350,000,000		

Bimetallism at 1 to 21 would give the following figures :—

—	1887.	The above money figure 69 would fall to	The above money figure 91 would fall to
Gold Countries -	£ 856,000,000	65½	—
Silver Countries -	428,000,000	—	86½
	1,284,000,000		

I assume that the gold countries have an estimated amount of money in circulation, gold and silver and paper of 900,000,000*l.* sterling; and the silver countries, 450,000,000*l.* sterling. I take that as a basis at least. Now at 1 to 15½, the French ratio, the following would be the figures: in the gold countries there would be an increase of 87,250,000*l.* sterling of money which would have to come from the silver countries in silver. There would be 119,250,000*l.* of excess of money in the silver countries as compared with the gold standard that would have to be distributed over the world; 87,250,000*l.* sterling of silver then would come to the gold countries, and the balance of 30,000,000*l.* would remain in the silver countries. The effect of the 1 to 15½ ratio would be that there would be 987,000,000*l.* in the gold countries, and 362,750,000*l.* in the silver countries. That would be on my calculation that the purchasing power of gold, which I represent by the figure 69 in 1887 as compared with 100 about 1875, would rise to 75½; and the purchasing power of silver, represented by 91, would fall to 75½, so far as England is concerned, therefore the rise would be a rise in price from 69 to 75½ as against 100 about 1875.

6289. Well, then, do you mean that it would not last, because that is not a sufficient rise?—I think so; that is not a sufficient rise, and it is very doubtful if enough gold and silver are being produced in the world to keep it there, particularly in the face of increasing populations. I take the next ratio of 1 to 21, the present ratio, with silver at 44½*d.* per standard ounce, and the Indian exchange at 1*s.* 4¾*d.* The gold countries would then have 856,000,000*l.* and the silver countries 428,000,000*l.* Now I call your attention to the fact that the total amount of money would be 1,284,000,000*l.* In the other case it is 1,350,000,000*l.* Now the reason of that is this, that in the gold countries there is 250,000,000*l.* sterling—it may be a little less—of silver which at the present moment is passing exactly the same as if it were gold. It fulfils exactly the same functions as gold now, the same as if in France and the Continent of Europe the ratio was 1 to 15½, and in the United States 1 to 16. In order to establish the ratio of 1 to 21 they would require to recoin every 21 five-franc pieces into 15 five-franc pieces, and thus on those 250,000,000*l.* there would be a loss to those countries by recoinage of 66,000,000*l.* sterling. That would be a diminution in the present quantity of money in circulation of 66,000,000*l.* sterling, or from 69 in gold countries to 65½, and from 91 in the silver countries to 86½.

6290. Then your view is, looking at what is required for the arts, that the supply would not be enough to keep up that addition to the currency which alone could keep prices steady and prevent that dislocation which you have spoken of between the fixed income and the prices?—Precisely. If in England we have not had enough gold, and in India they have not had enough silver, to keep up prices, where are you to get gold and silver enough to keep up prices either at 1 to 15½ or at 1 to 21? Of course it remains to be seen whether the present ratio of 1 to 21 can be maintained, that is, silver at 44½*d.* per ounce and the Indian exchange at 1*s.* 4¾*d.* That might prove a point of adjustment for a year or two, it could hardly be longer, unless the production of gold was increased.

6291. Your view is that bimetallism would only make a temporary barrier?—It is a palliative, and it would have the advantage of rendering the exchanges

between the gold countries and the silver countries in the world, you might say, uniform. Undoubtedly it would be a great advantage to have uniformity of exchange.

6292. It would not affect your view of the appreciation of the standard in consequence of the depreciation of prices?—Not at all. In England the ratio of 1 to 15½ would not restore anything more than from the level of 69 to the level of 75½, and in all probability 75½ could not be maintained.

6293. (Sir T. Farrer.) What would your remedy be?—I will state it as briefly as I can. As there is not enough gold and silver in the world for the increasing business of the world, as already England is suffering for want of coinage, and India is suffering for want of coinage, a normal gold country and a normal silver country so far as money is concerned, then if you had bimetallism to-morrow, if you have not enough gold and silver you must have falling prices, with bimetallism or with any metallic money system you choose to adopt. Now the question is this; are we going to try to find a money system that will preserve a tolerably uniform purchasing power? If we are, then metallic money cannot possibly give us a uniform purchasing power.

6294. (Mr. Chaplin.) You mean metallic money limited to gold and silver?—Oh, yes; I am not supposing that they would take any other metals, so the question is just this; you can raise the standard of money from 69 in the gold countries to 100 or to 90, and to the same figure in the silver countries if you decree by law to do so. It is clear that we have not got enough gold and silver to keep up prices; then on bimetallism, if you adopt it to-morrow, you might have it at 75½ or 65½ in England; but when you got it there it would immediately begin to contract, at least in the case of 75½. The proof is that we have not got enough gold to supply the arts, we are consuming our stock of gold. If we wish to adopt a system of money where we can maintain a positive standard, the real way is to issue inconvertible paper money along with gold and silver on a tabular standard of value, that is, upon an index number like those worked out in *The Economist* tables. If we could have adopted some means by which, during the last 12 years, we could have added to the quantity of money in circulation enough to have kept our standard average prices up to 100, then it is unnecessary to say that this standard of average prices would not have fallen to 69, both present and future payments would have been justly dealt with on the basis of 100, and no mediatization of wealth could have gone on, at least not to any material extent. This would have been a tabular standard perpetually rectified in the interests of justice by the rectification of the actual standard itself, namely, of the amount of money in circulation.

As we cannot depend on the production of gold and silver to give us the amount of these metals necessary to keep the purchasing power of money up to a fixed standard, and as thus with gold and silver alone we must still have falling prices, it becomes necessary to find some means of adding to the currency, and this can only be done by the use of inconvertible paper money. Money would then approximate to a yardstick or a gallon measure, though it would not be such an accurate standard as either of these.

6295. (Sir T. Farrer.) You first get your tabular standard of value, and then you make any quantity of paper that is necessary to keep up your currency to a certain point, or you take away any quantity that may be necessary to reduce it to a certain point?—That is the proposal. Without this you have no means of making any real or approximate standard of value; and so in the meantime contracting prices must go on ruining more and more the producers of the country, the class that in reality are needing protection, that is to say, protection against an unjust and ruinous system of legal tender money.

6296. Have you thought how your tabular standard ought to be constructed?—The “*Economist*” index

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number is an illustration of how it might be done. Suppose a Government department were to thoroughly consider the entire question, it can be worked out.

6297. A Government department is, in the first place, by collecting prices of everything to make a standard of value, and then the prices are to be kept uniform by creating such paper money as is necessary?—Quite so, enough to do justice. There is just this one point, and I must say it is a very important point in this case, there is no trouble about establishing the $65\frac{1}{2}$ and there is no trouble about establishing the $75\frac{2}{3}$, in 1 to 21, or 1 to $15\frac{1}{2}$; but the law would require to decide whether you are to start with a standard of $65\frac{1}{2}$, or $75\frac{2}{3}$, or 91, the Indian standard, or go back to the 100 of 12 years ago. It is for the law to establish that. The rectification of the injustice that has been done the last 12 years depends upon the extent to which the law would fix one figure or another. If it fixed 91, Indian prices would be in a general way stationary, that is if India received the amount of silver it is now receiving, and ours would rise from 69 to 91.

6298. Then would it not be necessary that a standard of value should be fixed not only in this country but in all countries?—It would be necessary.

6299. That would probably need an arrangement between all countries to make one uniform standard?—Yes.

6300. One uniform standard for all countries, and then the quantity of paper that each must issue must also be arranged?—Regulated entirely between the different countries.

6301. (*Mr. Chaplin.*) Then, do I understand you that the paper money is to be international money?—No, national money; but each nation would issue enough to keep the fixed standard.

6302. The metal money, the gold and the silver, would, of course, be international legal tender?—Yes.

6303. But the paper would be simply national?—Yes.

6304. Do you think that arrangement would work?—I think so.

The witness withdrew.

Adjourned till Friday.

Twenty-sixth Day.

Friday, 1st July 1887.

PRESENT :

THE RIGHT HON. LORD HERSCHELL, the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.
MR. J. W. BIRCH.
MR. HENRY CHAPLIN, M.P.
MR. L. COURTNEY, M.P.
SIR T. H. FARRER, Bart.

MR. C. W. FREMANTLE, C.B.
SIR W. H. HOULDSWORTH, Bart., M.P.
SIR JOHN LUBBOCK, Bart., M.P.
SIR LOUIS MALLET, C.B.

MR. GEO. H. MURRAY, *Secretary*.

Mr. T. COMBER called and examined.

6305. (*The Chairman.*) I believe you are a member of the firm of Messrs. Lyon, Lord, and Company, of Manchester?—We have three firms, Lyon, Lord, and Company, Manchester; Lyon, Comber, and Company, Liverpool, and Lyon and Company, Bombay.

6306. And you have a house of business at each of those places?—At each of those places.

6307. I believe you have devoted some consideration to the question of the gold standard of this country, and the proposal to substitute for a single gold standard a bimetallic standard?—For the conduct of my business I have had to give consideration to what is termed the silver question generally, that phase of it as regards this country and as regards other countries.

6308. Having a house in this country and also in India, and your trade lying between the two, you, of course, have necessarily had your attention called to the effect of changes in the value of silver in relation to gold?—Certainly.

6309. And you have, as you say, studied the silver question generally?—Yes.

6310. Amongst other branches of that question,

have you devoted attention to the proposals of those who are known as bimetallicists?—I have, as I understand them.

6311. Perhaps you will be good enough to commence by stating what are their proposals as understood by you, in order to enable us to judge of your criticisms upon them?—So far as I can make out, under a good deal of conflicting statement, the main points of their contention, taken from the more intelligent exponents, and I may say that the authorities that I have principally gone by are the statement of the bimetallic theory appended to the Report of the Indian Delegates to the Paris Conference in 1881, and the book "The Theory of Bimetallism," published by Mr. Barbour, are as follows:—that gold and silver, apart from their value as mere commodities, acquire, when coined, a special status, which confers upon them a special value, as money, which is conferred on them by the fact that governments give them currency as legal tender; that if, in thus making them legal tender, governments attach the condition that they shall exchange at a fixed ratio they must ex-

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change only in that ratio, and their value, as coins, must be regulated thereby. For purposes other than coinage the precious metals are used to so limited an extent that there is practically but the one market for them. Their value, as commodities, must therefore be governed by their value as coins within the limits of the charge for coinage. Consequently, if the principal nations that coin money combine to establish a fixed ratio of value, which I term "legal value," this will become the relative value of gold and silver throughout the world, which I term "market value." Although there may be, at first, a tendency to offer for coinage only the metal which can be obtained at the least cost, say, under present circumstances, silver, and to melt down that which costs most, say, under present circumstances, gold, the increased coinage demand for the former and the increased supply in the market of the latter, must eventually bring about an adjustment of the market value and make it correspond with the legal value. Lastly, that it is not the cost of production that determines the relative value of gold and silver, but the relative value which leads to the abandonment of the worst paying mines of one metal, and to the opening of fresh mines of the other metal, until the relative cost of production exactly corresponds with the fixed ratio.

6312. You understand their proposals to include a free and unlimited mintage of whichever metal is offered?—Whichever metal the public brings to the Mint.

6313. Now, what criticisms have you to make, assuming their views to be such as you have stated, upon those propositions?—Well, it appears to me that the inquiry falls naturally into two parts, first, whether it is possible to permanently establish a fixed ratio between gold and silver, and, secondly, whether it is desirable for this country to enter into such an international agreement in view of her own interests and the interests of India.

6314. Taking first the possibility of establishing a fixed ratio of value between gold and silver, what have you to say?—Well, as regards the first question the possibility of establishing permanently a fixed ratio between gold and silver, I think our opinion should be guided by the experience of other nations that have established a double standard, that we should inquire whether they have succeeded in permanently maintaining a fixed ratio; and I would premise that for a double standard to be really maintained I consider two conditions are necessary, first, that the Mints should be open to receive both metals whenever brought to them by the public, at the fixed ratio. The coins of whichever metal the mints will not receive are in reality current only as tokens. That both metals should be in actual circulation without either of them commanding a premium. There are three nations which during the present century have established a fixed ratio. France in 1803 established the ratio of 1 to 15½, the United States in 1834 established the ratio of 1 to 15.98, and India in 1841 established a ratio of 1 to 15. In the United States silver was undervalued, so that it commanded a premium, and was exported, and as it did not circulate the double standard was not operative; the standard though nominally double was actually single gold.

6315. Just pausing there for one moment, was that in your view because France had a different relation of silver to gold?—Because the market value was different, and the demand in France was a factor in that market value, but not the sole factor.

6316. (*Mr. Chaplin.*) At what date?—Between 1834 and 1853, I think.

6317. There was one standard, did I understand you?—There was nominally a double standard, but practically there was only gold current. In India gold was undervalued, and although some was coined, the coins commanded a premium and did not circulate. The double standard, therefore, in my opinion, was not operative, and when from the discoveries of gold in California and Australia there was a prospect

of its becoming operative, the Indian Government promptly abolished it.

6318. (*Mr. Barbour.*) May I ask at what date they abolished it?—1852.

6319. Was gold a legal tender before 1852?—From 1841 to 1852.

6320. Can you give your authority for that, because according to my information gold has never been legal tender since 1835?—I will read you my authority; you may take it for what it is worth. An Order in Council was promulgated January 1841, authorising officers in charge of public treasuries to freely receive gold coins struck in conformity with the provisions of Act XVII. of 1835 establishing the 15 rupee pieces. This continued till December 1852, when the proclamation of 1841 was rescinded.

6321. That was an executive order of the Government, as I understand it, directing its officers to receive gold at a certain ratio, but I do not think there was any law or order of the Government declaring that gold was a legal tender among the public?—I may be wrong.

6322. Can you find anything more?—Nothing beyond that. I go on the Government order of 1841.

6323. (*The Chairman.*) For the purposes of all payments which had to be made to the Government, as I understand, it was made a legal tender?—It was made a legal tender.

6324. (*Mr. Chaplin.*) Were all creditors obliged to take it in discharge of their debt?—I was not in India then, I only give you what I know.

6325. (*Mr. Fremantle.*) A ratio was established between gold and silver for certain purposes?—The Government agreed to accept them at that ratio.

6326. (*Mr. Chaplin.*) But other people were not bound by it?—I do not know about that.

6327. (*Mr. Barbour.*) Have you any evidence that other people were bound by it?—I have no evidence, I was not in India at that time.

6328. (*Mr. Chaplin.*) Then in other words you have no evidence that gold was legal tender?—Not beyond the amount that was legal tender at Government treasuries. It may have been legal tender otherwise, but that I cannot say; I have given you all my authority.

6329. (*Sir T. Farrer.*) Do you know whether it was paid and received as a matter of fact?—Never.

6330. (*Mr. Barbour.*) Was there never any gold paid to the treasury under the operation of the Act?—I should think not.

6331. (*The Chairman.*) Would you be good enough to continue?—In France I consider that the standard varied from time to time according to changing circumstances. For a number of years gold was rather undervalued. Little was brought to the Mint, 18,000,000*l.*, as against 127,000,000*l.*, during the 30 years ending 1850. It generally commanded a premium, and did not circulate. The difference between France and India was, at that time, in my opinion, one not of kind but only of degree. The Napoleon did not go to so high a premium as the gold mohur, but the French standard, though nominally double, may almost be considered to have been then actually single silver. When there was a large increase in the production of gold the market value of that metal changed, and it became overvalued at the French ratio. From 1851 to 1866 the quantity tendered for coinage was consequently largely in excess of silver, 224,000,000*l.* as against 13,000,000*l.* For a portion of this period the action of the Mint controlled the markets, and the double standard was really operative, but eventually silver went to a premium, and did not circulate freely, and then, though the standard was still nominally double, it is a question whether it should not be considered to have been actually single gold.

6332. Can you give us the date when you say that silver went to a premium?—It was during the civil war in America, when the demand for silver for India set in. Afterwards there was a large increase in the production of silver. Market values changed and gold became again undervalued at the French ratio.

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For a time the action of the French Mint again controlled the markets, but during the years 1872 and 1873 nothing but silver was tendered for coinage and the Government eventually refused to coin it. Since then the standard of France has undoubtedly been actually single gold; and her silver coins are as much tokens, in my opinion, as our own shillings.

6333. Do you attribute the refusal to coin it to the condition of things which you have just stated, or to the apprehension arising from the demonetisation of silver by Germany?—It was the apprehension that silver would be much depreciated. The demonetisation in Germany was, of course, one main factor in that depreciation.

6334. Then you attribute it to the joint operation of the state of the silver market, owing to the increased production and to the apprehension excited by the proposed demonetisation by Germany?—Yes, like other articles, excessive supply and apprehended diminished demand produced a fall in prices.

6335. (*Mr. Barbour.*) Do you know if the French Legislature has formally abolished the bimetallic system or has merely given authority to the Government to suspend the coinage of silver?—To suspend the coinage of silver, I believe; my contention is that it is equivalent to the suspension of a double standard. The experience of all three countries then appears to me to coincide and to show that a double standard cannot be permanently maintained under conditions that have heretofore existed. So far as it goes this is evidence against the maintaining of a double standard, even if the area over which the fixed ratio is established be extended.

6336. (*The Chairman.*) What have you to say on the fact to which the advocates of bimetalism point, that down to the time that France, as you say, ceased to be bimetallic in 1873, the price of silver, notwithstanding variations in the production of gold and silver, continued to be about the same?—I say that it was largely due to the action of the French mints and to the accident that the fluctuations in the supply of the two metals found her with a large stock of the metal which was being under produced. When gold was being largely produced during the discoveries in California and Australia, the currency of France had been almost altogether silver, and she had a very large stock of silver with which to feed the demand for that metal and a large vacuum in her currency which could be filled by gold. On the other hand, when silver became largely produced her currency was principally composed of gold, she had a large stock of gold to supply to other nations, and a large vacuum which would have been filled by silver if she had continued the coinage.

6337. (*Mr. Barbour.*) I believe France did absorb a good deal of the German silver?—I fancy so.

6338. Before she stopped the free coinage of silver?—I think so. During those two years, 1872 and 1873, she coined nothing but silver. My contention is, that if the increase had been just the other way, if, when gold was largely produced it had been the production of silver that had largely increased, she would not have been able to have maintained the fixed ratio or to control the markets.

6339. Do you think that the operation of the French system prevented a fall in gold in 1848?—To a very considerable extent, undoubtedly.

6340. (*Mr. Birch.*) As you stated just now, by the silver disappearing and the vacuum being filled by gold?—Yes.

6341. (*The Chairman.*) Then I understand your position to be that, in point of fact, the bimetallic system which existed in France did have an effect in steadying the price of both gold and silver at two different times, but that that arose in a measure from the accident of the position of France with reference to the possession of the precious metals respectively at those two epochs?—I think so. I think the action of France has been compared to a parachute, and it is a very good comparison, it prevents the balloon reach-

ing the ground quite so soon, but it does not stop its coming there eventually.

6342. And do you think that the result would have been the same supposing not France only, but all the great commercial nations had been bimetallic?—I have not given consideration to that question; of course the larger the area the greater the action of the parachute.

6343. Do you then arrive at the conclusion, from the facts to which you have called attention, that the permanent creation of a fixed ratio between the two metals as standards is possible?—I believe that it will be found impossible to permanently maintain a double standard, even when established over an extended area, by international agreement, and for the following reasons:—The figures as to the annual supply of gold and silver from the mines show that the production of gold is becoming less profitable even with the increased buying power which it has of late possessed; while on the other hand the production of silver is evidently becoming more profitable, even at the lower value to which it has recently fallen in the markets. I should like to put in a paper here which, if the Commission have not had the figures before, will prove interesting to them. It is a statement of the total dividends paid by certain joint stock mines in America as prepared by the "Engineering and Mining Journal," for the three years 1884, 1885, and 1886, and it divides them into mines producing gold only, mines producing gold and silver, mines producing gold, silver, and lead, and mines producing gold, silver, lead, and copper, and the result of the comparison, is this—that in 1884 the mines producing gold only distributed in dividends 2,222,000 dollars; the mines producing gold and other metals distributed 356,000 dollars. Two years later the mines producing gold only distributed in dividends 1,567,000 dollars, being a decrease of 655,000 dollars, the mines producing gold, silver, and other metals, distributed 1,925,000 dollars, being an increase of 1,569,000 dollars, so that while the profits on the one very largely fell off the profits on the other were quintupled. The effect of a fixed ratio, inasmuch as it will materially reduce the buying power of gold, will be to further largely curtail the production of that metal. I believe that the production will fall much below the world's consumption for other purposes than coinage, and that the stock at present existing as currency will be year by year diminished, and that eventually gold will command a premium and disappear from circulation. The production of silver will, on the other hand, be stimulated, for its buying power will be increased and an unlimited market will be secured for it by the opening of the mints under the international agreement. Silver alone will be tendered for coinage, and in course of time the metallic currency of the world will become wholly silver.

6344. (*Mr. Chaplin.*) Where would the gold go to if it disappears from circulation?—The gold will be used up in the arts and manufactures, and in hoarding in India and elsewhere.

6345. The whole of it?—The whole of it in course of time, a reasonable length of time.

6346. (*Mr. Barbour.*) May not that happen under the present circumstances, may not the supply of gold become less than the demand for arts and manufactures?—I do not think so, because the buying power of gold under the present system will increase, and stimulate its production.

6347. That is to say, gold will be saved from disappearing by a continual appreciation of the standard?—Possibly so.

6348. (*Mr. Chaplin.*) Can you tell us what is the relative proportion of gold now in circulation, and gold that is hoarded, or that is used in manufactures?—I will give you some figures, but they are very conjectural. I do not profess to have any special knowledge on that subject; I only take it from other authorities.

6349. What I mean is this, your statement would lead to the conclusion that the amount of gold to be

hoarded in the future, and to be used in manufactures would be enormously increased?—No, I could not give you a definite estimate of my own, but I could refer you to a definite estimate. I think there are two. There is one by Mr. Kimball, the director of the United States Mint; in his report for the year 1886.

6350. (*Mr. Courtney.*) But your suggestion of the possibility of the gold now in currency being exhausted in the use in arts does not depend upon a considerable increase of the use of gold in arts?—No, I do not think so. I am going to give you what I believe to be a fair estimate of the present consumption; regarding the future I do not anticipate any increase whatever.

6351. (*Mr. Chaplin.*) No, but I understood you to say that the whole of the gold in circulation under certain circumstances would ultimately disappear?—Yes.

6352. And that it would be used either for the purpose of hoarding or in manufactures. Well, there is a certain amount of gold in circulation now, and there is a certain amount, I suppose, used for those purposes at the present moment also, but the amount of gold in circulation, I imagine, enormously exceeds the amount used for those other purposes, is it not so?—Well, I will give you what I consider to be fair figures, but as I stated they are very conjectural, therefore it is very difficult to follow them. Assuming that the stock of gold now is 1,200,000,000*l.*

6353. Is that in circulation?—No. Of which 700,000,000*l.* consists of coin or of bullion held by the banks which may be considered as good as coin, leaving 500,000,000*l.* supposed to exist in the shape of manufactured articles and hoards. Then as to the consumption in the arts, you asked me a question, and I was going to give you the estimate of Mr. Kimball. It is the estimated annual consumption by the principal nations of the world. In the United States, 13,000,000 of dollars; in England, 11,500,000; in France, 8,600,000; in Germany, 8,200,000; in Switzerland, 6,600,000; in other countries, 9,500,000; total, 57,400,000 dollars. But that does not include any consumption by India and eastern countries generally, nor by Mexico and South America.

6354. (*Sir T. Farrer.*) All these figures are necessarily very loose estimates, are they not?—I believe so. I believe there is also Mr. Palgrave's estimate before the Commission on the Depression of Trade, and I believe that he estimates the consumption in arts and manufactures at 12,500,000*l.*, and the outflow to India at 4,000,000*l.*, making a total of 16,500,000*l.*

6355. (*Mr. Courtney.*) Pounds sterling, of course?—Pounds sterling.

6356. (*Sir L. Mallet.*) How long, do you think, with the annual consumption of, say, 16,000,000*l.* of gold, the stock of gold at present employed in coinage of 700,000,000*l.* would last?—I will give you those figures, if you like. I take Mr. Palgrave's estimate of 12,500,000*l.* for industrial purposes, 4,000,000*l.* for hoarding in India, and I add 1,500,000*l.* for hoarding elsewhere, which I believe goes on, making a total of 18,000,000*l.*

6357. Well, that is nearly the whole annual production?—Well, I consider that the annual production will be very largely curtailed, and will probably sink. It is quite conjectural what it will sink to, but I take 6,000,000*l.* That would give 12,000,000*l.* annually to be taken out of the estimated stock of gold, which I take as 700,000,000*l.* In the course of 30 years the 700,000,000*l.* would be reduced by one half, and I think that long before then gold would go to a premium and would disappear from circulation. I think it even possible that, from the very first, capitalists, who hold reserves of bullion, would prefer to hold them in gold, and I would instance the Bank of France, which, at the end of last year, to protect her reserves of gold, charged a premium of 4½ to 6 per mille.

6358. (*The Chairman.*) A premium for what?—

For gold, when it was required for export or other purposes.

6359. (*Mr. Barbour.*) Although gold was the standard of the country?—Yes.

6360. Really the standard?—Yes.

6361. (*Mr. Courtney.*) But nobody is bound to pay in gold, not even the Bank of France; it is not the standard in France?—The debtor always has the option.

6362. (*Mr. Barbour.*) But France has got, at present, a gold standard?—Yes.

6363. (*The Chairman.*) A gold standard, but with the option to pay in silver at a fixed ratio?—Quite so.

6364. (*Mr. Barbour.*) But may not, under any circumstances, the consumption of gold in the arts and manufactures largely increase. For example, the production of gold in the beginning of this century did not average 4,000,000*l.* a year at the outside, and therefore, apparently, 16,000,000*l.* a year or more for the arts and manufactures and hoarding is four or five times the production of that time; so there must have been a very great increase in the consumption of gold in the way stated since the beginning of this century?—There must have been an increase, but as to the probability of that increase continuing I have not sufficient special knowledge to venture an opinion.

6365. But if a great increase has taken place in the past, and the world has not less wealth, but more wealth, is the increase not likely to continue in the future?—It appears to me probable, but I have no special knowledge.

6366. (*The Chairman.*) That would appear to be the result you would anticipate from the extension of the general system of bimetallism to the commercial nations of the world?—That is the result which, more or less, I should venture to anticipate, not tying myself in any way to the figures or the number of years which would be requisite to attain the end which I venture to foreshadow.

6367. (*Mr. Birch.*) But that is on the ratio of 15½ to 1?—That is on the ratio of 15½ to 1.

6368. (*Sir L. Mallet.*) Should you think that that would be an undesirable result?—Very much so. I think it is much better for gold and silver to perform what bimetallists call the function of money than for any one metal to perform it. It will be a natural appreciation.

6369. (*Mr. Barbour.*) Do you call the exclusion of silver from the coinage of Europe and the free coinage of gold a natural appreciation of gold?—So far as this country is concerned, because its gold standard was established many years ago.

6370. When was the silver standard finally abolished in this country?—1816.

6371. (*The Chairman.*) You have alluded to the fact that the purchasing power of gold is greater than it was before?—Yes.

6372. Do you regard that as necessarily an evil?—For this country?

6373. Yes?—No; on the contrary, I think it is an advantage to this country.

6374. Will you tell us why you think it is advantageous to this country?—This country is a creditor nation. It has made large loans to foreign countries on a gold basis, and the annual interest it receives in the shape of commodities. When the purchasing power of gold increases the quantity of the commodities which it receives in payment likewise increases, and that is a benefit to the country.

6375. Is there any other respect in which you think it beneficial?—I think it is beneficial to a certain extent in India, because India is entirely differently situated.

6376. (*Mr. Barbour.*) Do you mean that the appreciation of gold is beneficial to India, or the depreciation of silver?—The depreciation of silver. It is the same thing. India is a producing country. She produces and exports sufficient to pay for her imports, for what has been termed the Government tribute, by which I mean the liabilities of the Indian Government

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in London, and to receive a balance in treasure, largely composed of silver, from her debtors, viz., the recipients of her exported produce. The lower silver falls, the more silver she exacts from her debtors, just as the higher gold rises the more commodities England exacts from her debtors. I think both countries are benefited by the recent change in the value of the precious metals.

6377. Do you think that India receives more from England, and England pays less for what she gets from India?—I do not take it as between India and England; I take it as between England and the rest of the world, and India and the rest of the world.

6378. Let us confine the question to India and England for the purpose of discussion?—That I have not investigated.

6379. But you hold that England gains on the whole more than she otherwise would do, and India also gains more than she otherwise would do?—On the balance of trade, yes. I enter into that explanation because I see, in a despatch of the Viceroy of India, that he points out that those persons who are of opinion that India has gained by the fall in exchange hold, as an essential part of the same opinion, that England and all other countries with a gold standard have lost in an exactly equal degree. That is what I want to controvert.

6380. (*The Chairman.*) You do not agree with that?—I do not agree with that.

6381. You hold that India has gained; you do not hold that India has lost?—I think not.

6382. (*Sir L. Mallet.*) I think you have said that one very great advantage to England is the fact of her being a creditor nation, that she lends money on a gold basis. The interest on that is paid in commodities, consequently she gets a larger amount of commodities, which is a benefit. Well, India is one of the countries to which these gold loans have been made. She has to pay a large quantity of commodities as interest on those loans. How should that be an advantage to India? If it is an advantage to England to get more, it is a disadvantage to India to pay more?—The item to which you have alluded is only one item in India's balance of trade, and it is more than counterbalanced by the other items.

6383. (*The Chairman.*) So that in the result, including that item, India is a creditor nation?—Yes, India is a creditor nation, and has to receive payment for the balance due to her. She exacts part of it in largely increased imports, and beyond that she also exacts payment of the balance in treasure.

6384. So that I understand your view to be this: that if you were to regard only that one item in the account between India and other countries which consists of a payment of interest on gold debt, she would be a loser by the depreciation of silver in relation to gold, yet allowing for that disadvantage, when you look at the total position of India as a whole, that disadvantage is more than counterbalanced by the advantages?—Exactly so.

6385. (*Sir John Lubbock.*) The silver debt of India is much larger than the gold debt?—I think they are pretty nearly equal, but I have not got figures, it is only a general impression. You will get that from other people much better than from me.

6386. (*The Chairman.*) Now with regard to the alleged depression of trade and agriculture in this country, owing to the suggested appreciation of gold, what have you to say?—I think that it is, as regards trade, much more largely due to other circumstances.

6387. What are the other circumstances to which you would call attention?—A great deal of loss undoubtedly has been sustained by the commercial community in consequence of the fall of gold prices, but I attribute that fall of gold prices largely to other causes than the absence of a fixed ratio.

6388. (*Mr. Barbour.*) Do you attribute it partly to the absence of a fixed ratio?—Partly to that. I think it is much more largely attributable to the cheaper production and over supply of various commodities; to the cheapening of the cost of transit,

both by land and by sea; to the elimination of middle men so that produce reaches the market without passing through so many hands; and to the cutting down of trade profits resulting from the increase of competition. As to the second of those items, the cheapening of the cost of transit both by land and sea; I should like to place before you some figures which have been prepared for me by one of my neighbours in the Bombay trade who is much more largely engaged in the wheat business than I am. The decrease in the value of wheat from 1875 to the present time may be taken at 10s. a quarter. He has calculated the cost of carriage from Cawnpore to Liverpool, and he finds that the cheapening of it during that time has been, from Cawnpore to Bombay 2s. per quarter; from Bombay to the United Kingdom 7s. 3d. a quarter, making a total of 9s. 3d. reduced cost of transit, or very nearly as much as the reduced price for wheat. He has also calculated the cost of transit from Chicago to Liverpool. He finds the reduction in the land carriage from Chicago to New York was 3s. 4d. and the decline in the cost of sea freight was 4s. 10d. a quarter, making a total of 8s. 2d.

6389. (*Mr. Chaplin.*) That is from America?—From America.

6390. (*Mr. Barbour.*) May I ask what rate of freight is taken from Bombay?—He has taken 50s. in 1875 and 20s. now, I think. He is more largely engaged in the charter of steamers than anybody in the trade.

6391. (*Mr. Chaplin.*) What is the price at which he estimates the wheat in 1875?—He takes it at 45s. a quarter in 1875 and 35s. a quarter now.

6392. (*Sir John Lubbock.*) And to those figures of 9s. 3d. and 8s. 2d. would probably have to be added something further for the facility you have in getting to Chicago or Cawnpore?—Chicago and Cawnpore are taken as being more or less the centres of the producing districts, for some wheat which came from a further distance it may be more, but some may be produced much nearer the shipping ports, and he has taken those places as an average.

6393. At the same time those are not the actual spots at which the wheat is grown, and to those figures there would certainly have to be made some addition?—If they all came through those spots it would be so, but some comes without passing through Chicago to New York; some might be grown quite close to New York.

6394. Clearly on whatever wheat comes from places farther off than Chicago, of course there would be an additional saving?—No doubt.

6395. I am not speaking of the wheat which came necessarily further, but of the wheat which came through those centres. There would not only be that reduction, but there would be some further reduction from the place at which it was grown?—This would be so.

6396. (*Mr. Chaplin.*) It would depend upon whether between 1875 and 1885 there had been any variation in the cost of bringing them to those centres?—I have no special knowledge of the rates of carriage in America myself, but I take it for granted that if the railway carriage from Chicago to New York is reduced, the chances are that the rate of carriage from the point of growth to Chicago, on such portion as comes through Chicago, would also be reduced.

6397. But would not your faith in that calculation be somewhat shaken by the fact that I find that in the year 1877 the average price of wheat was 56s. a quarter?—I did not prepare those figures myself, they were prepared by Mr. Nixon, who is largely engaged in the trade, more largely than I am, and I presume he selected that year as being a fair average.

6398. In that particular year, 1875, it is true it is put at 45s. 2d., but two years later than that it is 56s. 9d., or nearly 60s. a quarter, and it is now a good deal less than 35s.; therefore the increased rate of transit would not sufficiently account for the fall?—The 35s. was not the average price, it was the price at the date he made up his calculation. My object in putting

forward the figures is merely to show how largely the cost of transit has decreased since 1875, when the fall of silver first began.

6399. (*Mr. Barbour.*) Do you think that the lowering of the cost of production of commodities, and the cheapening the cost of carriage, would affect the relative value of gold and silver?—I do not think so at all.

6400. That is a separate question?—Quite.

6401-3. (*The Chairman.*) I suppose if half the crop failed in India the price would go up, and if there was double the average crop the price would go down, but that would not affect the fact that in either case they would be able to charge 8s. 4d. less than they would have done if they had not had that reduction in the cost of transit?—Yes.

6404. (*Mr. Barbour.*) Would you not ordinarily expect that the opening out of a new market for Indian wheat by a reduction in the cost of carriage to Europe would tend to increase the price of wheat?—I should expect that it would have that effect.

6405. (*Sir T. Farrer.*) Then you account for nearly the whole of the fall in the price of wheat by diminution in the cost of production and transport?—I do not wish to go so far as that, I merely wish to show how greatly the cost of transport has decreased.

6406. But you do not add the diminution in the cost of transport to the exchange, and say that is the diminution in the cost of wheat?—Exchange has helped to put down the price of wheat, and a thousand and one other things have affected the price of wheat. I am merely mentioning how much the cost of transport has been reduced, which will be one of the forces that will produce that effect.

6407. But the figures that you have given account for pretty nearly the whole of the fall in the price of wheat?—Very nearly, but they vary from year to year, as has been pointed out.

6408. (*The Chairman.*) What you mean is, that supposing the present year and the year 1875 were what we may call normal years, as regards production and demand in India, the difference in the cost of transit would account for the difference in the price between these two years?—Largely account, not altogether.

6409. Now with reference to a general fall of prices as affecting trade; do you consider that an unmixed evil?—While it is in process it produces loss, but when it has taken place I think it produces safety.

6410. Can you give your grounds for saying so?—When prices fall merchants, who always hold more or less stock, merchants and dealers throughout the country, lose on their holding.

6411. Yes, that is the loss while it is going on, but what is your reason for saying that it leads to a condition of greater safety afterwards?—There is less room for a further fall.

6412. (*Mr. Barbour.*) But are you not looking too exclusively to the interests of the merchants? We must also consider the producers. A fall in prices is a fall for the producer too. It is unpleasant, no doubt, for both parties while the fall is going on, but it takes a longer time for things to adjust themselves to that lower price for the producer than for the merchant?—By the producer do you mean the farmer?

6413. The farmer in his capacity of producer would lose?—Yes, the farmer would lose, until he could get his rents adjusted, but when he gets his rents adjusted he makes a living profit, whether he makes it at 1l. an acre or 3l. an acre.

6414. He passes the loss on to the landowner?—He passes it on to the landowner, and the landowner undoubtedly suffers.

6415. And the process of having the rent adjusted to correspond with the prices may be a very troublesome one, as we see in Ireland?—It may be, but I think in the long run it will be effected.

6416. (*The Chairman.*) Should you dispute the proposition that a variation in the purchasing power of the standard, depending on the greater scarcity

of the metal which formed the standard, was a disadvantageous thing?—I think the steadier the standard could be kept the better.

6417. As regards fixed payments that have to be made at a future date, it does alter the obligations of the debtor to the creditor substantially if the standard varies between the date when that obligation was contracted and the date when it has to be performed?—I think that is self-apparent.

6418. And of course, if it could be avoided, you would not deny that it would be desirable to avoid it?—Just so.

6419. What have you to say with regard to the suggestion that, trade being largely carried on with money borrowed from capitalists, there has been a disturbance in the relation of the trader to the lender, owing to a change in the value of gold?—I think that it has been very largely exaggerated by some of the people who have written on the subject. I do not think that the trade of the country is so largely carried on by borrowed capital as some of the writers on the bimetallic side have contended.

6420. (*Sir T. Farrer.*) And would the loans be permanent loans, or would they be loans from day to day, the terms of which would be altered according to the state of circumstances?—The greater part of the loans would be temporary loans, but of course the joint stock companies borrow very often in debentures. These may be permanent loans, but the greater part would be fluctuating and temporary loans.

6421. (*The Chairman.*) Your view is that even if you adopted the double standard with a fixed ratio such as that suggested, it would not really make your standard less variable than it is at present?—I think so.

6422. (*Mr. Barbour.*) Would not the average of the two metals have the effect of producing a more stable standard than if you allowed them to vary independently?—My opinion is that within an appreciable time you would only have one and you could not take the average of two.

6423. But that would be on the whole the cheaper metal of the two, would it not?—The cheaper metal of the two.

6424. I mean there would be less appreciation of that metal?—It is cheaper in one sense; at present it is worth only one twentieth part of the other, but it might appreciate or depreciate.

6425. It might appreciate or depreciate, but what I say is this: you have two metals at a fixed ratio and one of them appreciates as you may say out of existence as money; clearly the other or the less appreciating standard is the one that would remain?—The less appreciating certainly, it may very largely depreciate.

6426. (*The Chairman.*) Then whilst those who have fixed payments to make have suffered from the greater purchasing power of gold, and those who have fixed payments to receive have benefited, what have you to say with reference to the wage earning classes?—Wages are very slow to feel the influence of any change in the standard of value, and they have not decreased as much as the prices of produce have decreased; consequently the condition of the wage earning class is now very much better than it was 14 or 15 years ago.

6427. (*Mr. Barbour.*) You think their wages have fallen something?—In particular instances they may have fallen.

6428. Take an average if it is possible to do so?—I should like you to refer to some tables which were prepared by my partner, Mr. Lord, for the Commission on the Depression of Trade, in which he showed that although the rate of wage given to cotton operatives in Lancashire had declined, the weekly earnings of the operatives in consequence of the larger amount of work which by better machinery they were able to turn out had very considerably increased, but that is not as between 1873 and now, but as between the time at which he spoke and 30 or 40 years ago.

6429. But as between 14 or 15 years ago and the

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present day?—I should think that, speaking generally, wages had decreased very little.

6430. Very little, but something?—Something.

6431. (*Mr. Courtney.*) Money wages?—Money wages.

6432. Real wages?—Real wages, that is to say the buying power that the wages represent, have risen I think decidedly.

6433. (*Mr. Barbour.*) That is owing to the cheapening of the cost of production of commodities?—A man can buy for his reduced money wage a great deal more than he could 14 or 15 years ago.

6434. That cheapening of the cost of production of commodities would not be lessened by the adoption of bimetallism?—In so far as relates to the reduced cost of transport and so forth it would not.

6435. (*The Chairman.*) Therefore your view being that the larger proportion of the diminished cost of commodities has arisen from causes other than the standard, there would be nothing in the adoption of bimetallism to prevent all those other causes acting still?—I think not.

6436. (*Sir T. Farrer.*) But so far as alteration of the standard goes and a diminution of the purchasing power of gold, it would have the effect that you speak of on wages?—There is no doubt.

6437. So far as bimetallism had the effect of depreciating the standard?—It would largely increase the price of various commodities to the wage earning classes.

6438. (*The Chairman.*) I am not quite sure that I follow that. Why should it largely increase the price of commodities if the diminished price of commodities has chiefly resulted from causes other than those which have relation to the standard?—It would largely diminish the purchasing power of, I was going to say gold, but gold and silver combined, the standard.

6439. But why should it do that?—Because silver is produced to such excess that the large quantity of it that would be tendered for coinage would very largely increase the currency, and that always has the effect of raising prices.

6440. (*Mr. Chaplin.*) You mean that one effect, at all events, of the adoption of the bimetallic theory would be to increase prices generally?—Yes.

6441. Largely, you say?—I think largely in time, as the production of the mines comes into the currency.

6442. (*Mr. Barbour.*) And supposing that the adoption of bimetallism at 1 to 21 was chosen, what would be the effect on prices as compared with present prices?—I should think very little for a time.

6443. And ultimately?—Ultimately, if the production of the mines was very largely increased, it would tend to send them up.

6444. (*Sir W. H. Houldsworth.*) Would not the same effect that you say would be produced on the commodities be produced on wages?—I think so. I think that the wage earning classes are quite able to take care of themselves.

6445. And therefore their relative position between the wages and commodities, although both had risen, would be the same?—I think the wages would be slower to rise than other things.

6446. (*Sir L. Mallet.*) You say that you think on the whole that the effect of the increased purchasing power of gold has been favourable to the wage earning class?—I think so, yes.

6447. Are you aware that that opinion is entirely opposed to that of a great many very eminent economical authorities, more particularly I might refer to Professor Cairnes, who is very well known to most of us, and who wrote a series of very valuable essays on the gold question, in which, after arguing very elaborately and with his usual great power of exposition and skill, he comes to the conclusion that although the result of those gold discoveries has been an advantage in many respects, on the whole it has been unfavourable. Still in spite of that he distinctly came to the conclusion, as regards the wage earning classes, that it was a decided advantage; and that opinion, I

think, would be held by a great many authorities. It is curious to find a diametrically opposite opinion on that very vital question held by both sides of this argument?—I have given you the best opinion I can form quite independently.

6448. (*Mr. Barbour.*) I believe between 1848 and 1873 the condition of the wage earning class improved immensely?—I fancy so; I believe so.

6449. Everbody says it did?—Yes.

6450. The standard of value was pretty steady between 1848 and 1873?—The standard of value; that was while France still maintained the double standard.

6451. Notwithstanding the great production of gold, (I believe the production increased to 10 times what it was before,) the operation of the bimetallic system almost kept the standard steady during that time?—I have already given my views that it did at times. And during that time, while the standard of value was pretty steady, there is no doubt that trade and manufactures largely increased in this country and that the operatives increased their wages.

6452. (*The Chairman.*) The extent to which the adoption of bimetallism at any ratio of gold to silver would affect prices, would depend upon what the real relation is between prices and an increase or diminution of the volume of the currency?—I think so. I do not quite follow your question.

6453. Well, you have assumed, I rather gather, what some people question, that an addition to the volume of the currency must directly and extensively affect prices?—Yes.

6454. And when you say that prices would largely rise if you adopted bimetallism at a particular ratio, it is upon the assumption of the direct relation, which some people doubt, between a change in the volume of currency and the prices?—It is quite so.

6455. (*Sir T. Farrer.*) Supposing that price did not depend upon a direct relation between the volume of currency and the transactions of commerce, but upon a value of the standard unit of metal, the value of that standard unit of metal will still be affected by the demands which are made upon that metal for the purposes of currency? It is proposed, is it not, by bimetallism that silver shall be made equally with gold the currency of the world?—I understand so.

6456. And the effect of that would be to increase the value of silver, and to diminish the value of gold, considered as metals?—Yes.

6457. Therefore, what are now gold prices would be altered and would rise, even though there were no direct relation between the volume of currency and the individual transactions, because there would be a less demand upon gold and a greater demand upon silver?—Gold prices would then cease. What are now gold prices would rise when they came to be currency prices, and what are now silver prices would fall when they came to be currency prices.

6458. (*The Chairman.*) Supposing that you did not alter in the slightest degree the volume of the currency, but substituted so much silver for so much gold; and had the same volume as before, taking the two at a fixed ratio, why should there be any alteration of prices at all?—After the change, caused at first by the adjustment of exchange, I do not think, under these circumstances, that there would be.

6459. (*Sir T. Farrer.*) But what ratio would you take. Taking it at 1 to 21 there would be no difference?—No difference.

6460. Supposing that you adopted bimetallism for the whole of the civilized world, including India, and that you adopted it at a ratio of 15 to 1 instead of the present ratio of 20 or 21 to 1, what would be the effect on prices in India, and what would be the effect on prices in England?—Prices in India would undoubtedly fall considerably, and prices in England would rise.

6461. (*Mr. Barbour.*) And supposing there was an increased production of silver owing to the adoption of this new ratio, what would be the effect of that

on India?—As the volume of the currency increased I should think prices would tend to rise again.

6462. Do you think that if the value of gold and silver altered to-morrow on the London market from 44*d.* an ounce to 60*d.* an ounce, that instantaneously all values all over India would fall in proportion?—I do not say instantaneously, but in the course of a comparatively short time.

6463. Do you think it would be a short time or a very long time?—I should say it would be a short time. I know that at ports for shipment the prices would change immediately.

6464. Do you think an immediate change would take place in the silver prices of articles produced in the interior of India and wholly consumed by the people of India?—As the production of them would be affected by the production of the other articles. If you would allow me to explain, wheat and seeds and cotton and indigo and a very large proportion of what India produces is exported to other countries. If the price of those articles fall, as I think you admit they will fall, the cultivator would tend to produce much more largely those articles the price of which has not fallen, and by that larger production he would eventually reduce the prices of those articles to which you have alluded, and which are not exported from India.

6465. The question is what length of time would that process take to affect prices generally in India, not of articles exported, but of the articles consumed in the country?—I should think a year or two.

6466. (*The Chairman.*) I am not sure yet that I quite understand your view. Supposing that you fixed for the great commercial nations a ratio of 15½ to 1 to-morrow, why should prices in this country thereupon rise?—I have attributed the fall of prices partly to what is generally termed the appreciation of gold.

6467. But you attribute it very little to that?—Well, to that extent, I think, prices would at once rise.

6468. That I understand, but I thought that your view was that although the fall of prices very little depended upon that, if you fixed the bimetallic ratio there would be a very large rise of prices?—It would depend a good deal upon the ratio that was fixed.

6469. I am supposing 15½ to 1?—I think then that there would be a rise in prices.

6470. (*Mr. Courtney.*) But is there any difficulty in reconciling the two propositions. Supposing silver did not exist at all, and that our currency was simply gold, might there not have been during the last 10 years a great diminution in prices, owing to the diminution of the cost of production, of carriage, and other circumstances to which you have referred?—I think that a considerable amount of the fall that has taken place has been caused by the decreased cost of transport and other things which I have enumerated.

6471. Quite so, and if we could blot out of our experience the fact that there is such a metal as silver the same sequence of cause might have been in operation, bringing down gold prices which would then be gold prices?—Bringing them down, but not quite to the extent to which they have fallen.

6472. But still largely operative to bring down prices as they have been brought down?—I think so.

6473. Well now, if upon that supposition you add this other that henceforth any person, who is bound to pay an ounce of gold, should be equally at liberty to pay 15½ ounces of silver; if the 15½ ounces of silver are much cheaper in the market than the ounce of gold, would not the effect of that alteration in the condition of payment at once cause a very considerable change in prices to ensue?—It would depend a great deal upon the cheapness of the silver which was brought into the currency.

6474. I take it that 15½ ounces of silver are to be an equivalent, for the purpose of payment, to one ounce of gold. If, as we know by experience at this moment, 15½ ounces of silver can be produced at a much less rate than one ounce of gold, the effect I have referred to would follow?—That would be the effect.

Undoubtedly there would be a rise, but until the amount of silver in currency largely increased I do not think the rise would be very material.

6475. The difficulty to which the Chairman has referred appears to be this, that you cannot have a rise of prices, according to the theory of money, without a commensurate increase in the volume of the currency. Would not the effect of introducing such a capacity of payment as I have referred to, of 15½ ounces of silver being worth one ounce of gold, at once produce a movement, going on *pari passu*, an increase of the currency and a rise of prices, not one as the cause of the other, but two conditions flowing from the same cause, namely, the fact that the 15½ ounces of silver are worth for the purposes of payment one ounce of gold, and that they may be obtained with much less cost than one ounce of gold. The tendency undoubtedly would be to cause a rise of prices if the cheaper silver were brought in, and the currency at the same time were to be augmented?—Yes, certainly.

6476. They would go on together?—They would go on together.

6477. They are conditions of one another, rather than causes of one another?—As the currency increased higher and higher would go the prices.

6478. (*The Chairman.*) I thought that, according to your view, as the silver went in the gold would go out, therefore the volume would not be greater?—I am assuming that there is a very large increase in the production of silver. You put it to me as part of the question, that the volume of the currency should largely increase, and I answered it on that hypothesis.

6479. What I wish to put to you is this: the extent to which this affected prices, even in the view suggested in the question put to you, must depend on this, must it not? We are supposing that that fixed ratio extends to all commercial nations, so that everybody in England, France, Germany, Italy, and the United States would have an equal right to discharge the obligation of one ounce of gold by 15½ ounces of silver. Then the extent to which that would affect prices would depend upon the amount of silver that would be available for all those creditors to get hold of to discharge their obligations with?—Yes.

6480. (*Mr. Courtney.*) That could be poured in from month to month, you might say?—The effect on prices even in a silver country where they already have an option of paying in silver would be to eventually cause a rise in prices.

6481. (*The Chairman.*) I was talking of the gold using countries adopting a bimetallic standard, where, I understand you to suggest, because your suggestion would not apply to England alone, that if all the gold using nations became bimetallic, prices would rise everywhere else as much as in England?—They would rise in all gold countries.

6482. Well, the extent to which they would rise must depend, must it not, upon the amount of silver which you suppose it would be advantageous to the debtors to pay?—There would be an immediate effect, because silver is cheaper than gold, and when silver is brought into the currency, that reduces, as it were, the average of the currency in my view, and would of course cause a rise in prices.

6483. I am looking at it apart from the consideration of currency at all?—I cannot consider prices apart from currency.

6484. Apart from the volume of currency. What I was going to ask you next was this, whether, if it were so advantageous to all the debtors in all the great commercial countries of the world, whose debts would be very largely in gold, to pay silver instead of gold, there would not be immediately such an increase in the demand for silver as to be likely to raise the price of silver, and therefore make it less and less advantageous to take that course?—The present price of silver would change at once, immediately, instantaneously.

6485. And rise?—And rise, yes.

6486. (*Sir T. Farrer.*) What would be the effect upon the different countries? France holds a quantity

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of silver, the United States holds a quantity of silver, India holds a quantity of silver. Would all that silver rise in value?—Certainly, when the fixed ratio was established. Its value with relation to gold would at once change, its gold price would at once change.

6487. Then silver in all those countries, the value of the property which those nations hold in silver, would rise?—Yes.

6488. And the gold of those nations which hold gold would fall in proportion?—I think so.

6489. Therefore the adoption of bimetallism at the ratio of $15\frac{1}{2}$ to 1 would be a gain to the silver possessing countries and a loss to the gold possessing countries?—It would be a gain to a country which held a large stock of silver, so far as that stock of silver was concerned.

6490. (*Mr. Barbour.*) And if a country happened to hold both gold and silver, as India does, and I believe France, the loss and gain might balance?—It might if the quantities were about equal.

6491. And in any case the loss or gain would be exactly equivalent to the gain or loss from the abandonment of the old ratio?—So far as the effect of the currency is concerned, but value has had many influences brought to bear upon it since that time.

6492. (*Mr. Birch.*) I understood you to say that prices have fallen where the competition from the silver using countries, from India, for instance, had come in, while India had benefited by the exchange?—I have given my reasons for thinking India should benefit.

6493. Then she would lose that benefit supposing the ratio were raised to $15\frac{1}{2}$ to 1?—Yes; I think India, as a whole, would very decidedly and very greatly suffer if the ratio of $15\frac{1}{2}$ to one were adopted.

6494. (*Mr. Barbour.*) Who do you think would get the benefit of that loss to India?—Those nations which hold a large stock of silver, and more especially the owners of silver mines.

6495. (*Mr. Birch.*) We were told the other day by one of our witnesses that should a ratio of $15\frac{1}{2}$ of silver to one of gold be established, not another quarter of wheat would be shipped from Chili, and not an ounce of copper, that it would stop the shipping, therefore it would raise the price here by keeping that competition out of our markets?—I do not know anything about Chili. I do not think it would stop the import of Indian wheat, for instance.

6496. The export from India?—The export from India, and the import into this country of Indian wheat. To a certain extent it would check it, it would not be in favour of it, but I do not think it would stop it by any means.

6497. Can you tell us the proportion of grain that India ships to this country, compared with what she consumes herself?—No, I do not know what she consumes.

6498. (*The Chairman.*) One disadvantage of the present system, in which the change in the relative value of silver and gold arises, has been said to be that it checks the investment of British capital in silver using countries; what have you to say with regard to that?—I think as regards loans it has that effect. Capitalists will not lend money to incur the risk of interest and principal being repaid in silver, which may be still further depreciated, without having a *quid pro quo* in the shape of larger interest; but as regards investments in industrial undertakings, I do not think it would have the effect of checking outlay of capital in silver countries.

6499. What is your reason for that statement?—The reason is that if the value of silver were to decline, the value of every industrial undertaking, other things being equal, would advance in exact proportion, so that the gold value would be the same.

6500. (*Mr. Barbour.*) That is on the assumption of which we spoke a little time ago that the value of everything alters with the alteration of the gold value of silver; that silver prices alter very quickly after the gold price of silver is altered?—As regards India, certainly.

6501. (*Sir L. Mallet.*) Is it not a fact that in consequence, I suppose, of the present price of silver the Government of India has found it impossible to get railways constructed in India except by giving a guarantee?—I have no special knowledge on that point.

6502. That is the fact. She has been compelled to give a guarantee and interest in gold at an increased rate, in consequence of the impossibility of finding British capitalists willing to embark in railway enterprises. One railway was started, you know, without any guarantee at all, and that movement was entirely checked?—I have never had anything to do with the raising of capital for Indian railways.

6503. (*Mr. Barbour.*) If you will allow me, I will read to you what a Bombay merchant wrote to me last September on the subject of the investment of capital in silver countries. I may mention that the enterprise in which he is engaged is a very prosperous one:—"There can be no doubt that the uncertainty of exchange has checked foreign capital. No sane man would bring out money here with the uncertainty as to what it would be worth later on. Our . . . capital we brought out at $1s. 11d.$ I could send it home to-day at $1s. 4\frac{3}{4}d.$. . . I have no doubt that English capital would come here for every promising scheme if it were not for the uncertainty regarding exchange." You do not agree with that?—I do not agree with it.

6504. Do you agree with that partly?—I do not as regards industrial undertakings.

6505. (*The Chairman.*) You agree that while formerly he could send it home at $1s. 11d.$, he can do so now only at $1s. 4\frac{3}{4}d.$, only you say that he could get as much for his $1s. 4\frac{3}{4}d.$ as he could for his $1s. 11d.$ I understand?—I do not know the circumstances of the case. That he could formerly send it home at one rate, and now at a very much lower rate is patent.

6506. What I understand you to suggest is, that although there has been a fall in exchange there would not necessarily be a fall in the real value, even in gold of the money invested in industrial undertakings in India?—That is it.

6507. It is true that if you had to send the money home you would have to send it home at the exchange of $1s. 4\frac{3}{4}d.$ instead of $1s. 11d.$, but you would get so many more rupees for your industrial undertakings than you did before, and you would be able to send the same amount of gold home?—Other things being equal.

6508. (*Sir T. Farrer.*) There is another alternative that the gold which you receive may be worth so much more, supposing that the change has taken place rather in the relation of gold to commodities than to silver to commodities; is that not so?—Yes, you are quite right in that. It might be a smaller amount of gold, but the purchasing value of that gold would be greater.

6509. The commodities would be the same, whether there were more or less silver would be comparatively immaterial?—That is it.

6510. (*Mr. Courtney.*) And in that view it would not matter in the least, whether you invested 10,000*l.* in commodities in India, or 10,000*l.* in commodities in Great Britain. At the end of ten years the commodities might sell, those special commodities, for a less amount than 10,000*l.*, but the amount would be equally powerful to buy other commodities?—Yes.

6511. (*The Chairman.*) But do you not think that people investing money are so much affected by what one may perhaps term sentiment rather than reason, that if they invested their 10,000*l.* in gold and they could only count on getting say 9,000*l.* back in gold, they might be unwilling to invest, though you could show them that the 9,000*l.* would buy as much as 10,000*l.* could before?—There might be a sentimental objection.

6512. People still insist on payment of interest out of capital, though it has been demonstrated to them

that they only get so much of their own money back?—Yes.

6513. But the same thing would happen, would it not, supposing it were an investment in a gold using country if it was the value of gold that increased. A man who invested 10,000*l.* in Australia would only receive 9,000*l.* instead of 10,000*l.*, but the 9,000*l.* would be worth quite as much as the 10,000*l.* was before?—Yes.

6514. (*Mr. Barbour.*) The fall in silver in relation to gold during the last 14 years has been rather more than 25 per cent.?—Yes, it is more than 25 per cent.

6515. And very little short of 2 per cent. per annum for this period of 14 years?—Just about that.

6516. Do you not think it a serious drawback in going into any investment, to feel that possibly you may be losing every year, during a period of 14 years, 2 per cent. every year of your capital, which you have to cover by increased profits?—That is so, but I am assuming that in industrial undertakings, other things being equal, the amount would not remain fixed, but would increase in rupees as the exchange falls.

6517. But would not that increase have to be very considerable and very rapid to cover the loss of 2 per cent. on your capital every year for 14 years?—I do not think it is more rapid than I should expect, other things being equal.

6518. As matter of fact, have industrial enterprises in India been giving that large per-centage of profit to cover the fall in their original gold value?—No; other things have not been equal.

6519. (*The Chairman.*) Now, as regards the unsettlement of trade between gold and silver using countries owing to the change in the relative values of the metals, have you any observations to make?—That is a question on which I can speak with greater confidence than any on which you have yet touched, because I have been engaged in business with India throughout the whole of the time, and undoubtedly when the first fall in exchange took place merchants who were engaged in the Indian trade, who had large outstandings in rupees, lost and lost heavily, but since that time anyone who has been desirous of avoiding the risk of exchange and who has taken the trouble of taking proper precautions has been quite able to do so. Those who wear the boot know whether it pinches or not, and I should just like to read to you the resolution, if you have not had it before, to which the Bombay Chamber of Commerce came when the subject was brought before it. This is from the last report of the Chamber.

6520. (*Mr. Birch.*) What is the date?—The report is for the year 1886, and was issued sometime in 1887, about May, I should think. This is an extract from the report:—“Amongst the committee (of the ‘Bombay Chamber of Commerce’) themselves no ‘difference of opinion had ever existed, and it was ‘satisfactory to find therefore that the members of ‘the Chamber by a large majority declared in favour ‘of identical views, viz., ‘That they deprecate any ‘interference with the currency. While admitting ‘the inconveniences of constant fluctuations in ‘exchange, they are of opinion, after considering ‘the question from all sides, that the fall in exchange ‘leaves a balance of benefit to the commerce and ‘people of India, and are in favour of allowing things ‘to run their natural course.’”

6521. (*Sir T. Farrer.*) At what date?—It was debated in the course of the year 1886, I think towards the end of the year.

6522. (*Mr. Barbour.*) I believe they hold that the fall in exchange has stimulated the export trade?—I do not know whether that is the ground on which they go.

6523. (*Sir L. Mallet.*) They think on the whole that they are benefited?—That the commerce and people of India have benefited.

6524. Is it your opinion also, that as regards the trade of England with India, it has also benefited by this state of things?—I think it has undoubtedly, as regards both imports and exports.

6525. Then these fluctuations of exchange have been an advantage both to India and England?—I say that when the first fall took place merchants lost. You see you are rather mixing up two things. You are mixing up the fall of exchange with loss caused to the trade by fluctuations in exchange. I will speak to one or other; they are distinct.

6526. I do not understand to which those remarks of the Bombay Chamber of Commerce apply?—They apply to both. The first part of the resolution deals with the “constant fluctuations in exchange;” the latter portion refers to the other question of the fall of exchange, and its advantage or otherwise to the commerce and people of India.

6527. Then you think the fall in exchange has been a benefit to the people of England, and to the people of India too?—Yes, I have already tried to explain how.

6528. Then it has been a benefit to both sides?—I think so.

6529. (*Mr. Barbour.*) Do you hold that the fall of exchange has stimulated Indian exports?—I do.

6530. A witness gave evidence to that effect, and when it was pointed out to him that the import trade had increased as rapidly as the export trade, he said that, in his opinion, the fall in exchange had stimulated imports too. Do you agree with that?—Yes, certainly, but I should rather you took the latter information as matter of fact from the Board of Trade returns than as matter of opinion from me.

6531. I merely wish to get your opinion upon that question that the fall of exchange has stimulated exports from India, by giving the Indian cultivator more rupees for his produce?—More purchasing power.

6532. The fall of exchange has stimulated imports also?—Yes.

6533. I understand you to hold that a fall in silver relatively to gold has stimulated the imports and exports of a silver country with a gold country?—Yes, the imports indirectly by improving the condition of the consumers.

6534. And, as a matter of fact, the fall has increased the quantity of exports, and increased the quantity of imports?—Yes.

6535. Do you lay it down as a general principle, that that would be the effect of a fall in exchange?—I cannot; on the contrary, I will give you my reasons why I think that the fall in exchange has stimulated the exports from India alone under the special circumstances which exist in India, and I should not like to extend that as a general principle to other countries.

6536. What are the reasons why the fall has specially stimulated the exports and imports of India, and would not do so in other silver countries?—In my opinion it has given the Indian producer an advantage over his competitors in other countries, in this way, as the exchange falls, the rupee prices, other things being equal, rises. The cost of production, which he incurs, in consequence of the fixed settlement in India, or in other words, the rent he pays, does not advance, and if he employs labour, the wages also are slow to advance, and as matter of fact, they have not yet advanced as much as the produce has. Under those circumstances I think the producer in India is at a decided advantage over his competitors, whether in England or in America, and to that extent I believe that it has stimulated exports.

6537. Would not the producer in any silver country equally, or at any rate in something like the same degree, have the same advantage?—No, I should think that he would have to pay advanced rents.

6538. And will not the Indian producer have to pay advanced wages?—Yes, in time.

6539. And when the Indian producer has to pay advanced rents and wages the benefit disappears?—I think so, yes.

6540. (*The Chairman.*) Did you say, owing to the land settlement the Indian producer never would have to pay advanced rents?—So I believe.

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6541. (*Mr. Barbour.*) Where there is a permanent settlement in India there is a landlord, and under those circumstances the cultivator would not benefit?—But then the man whose landlord is the Government, and whose land tax does not advance, gets the benefit.

6542. Where there is a temporary settlement for 20 or 30 years the cultivator would get the benefit for that period?—Yes.

6543. As matter of fact has the Indian price risen?—Not much, but it is immaterial, I think, in his competition with other countries whether he has obtained a rise in price, or whether he has avoided a fall in price which his competitors have had to suffer. I should like to quote the Viceroy of India's despatch on that point if you would allow me. It is dated the 2nd February 1886, paragraph 13. I think it is addressed to Viscount Cross:—"We would call your 'Lordships' special attention to the fact that the 'Indian cultivator of wheat and cotton appears to have actually gained, while the English and American producer of these commodities has suffered by the fall in the rate of exchange.'"

6544. Do you agree that the Indian producer has gained temporarily?—That they temporarily gain; by gain I mean either by obtaining an advance in price or by avoiding a fall in price.

6545. And the English producer has lost?—The English producer has lost; that also is temporary until he gets his rents reduced.

6546. And his wages?—And his wages.

6547. Then would it not be a good thing to try and avoid these fluctuations in the future whereby one country gains and another loses, and to have the same standard everywhere?—I have stated already that I think a steady standard would be an advantage if it could be obtained.

6548. (*The Chairman.*) I was asking you about the inconveniences of the unsettlement of trade between this country and silver using countries, owing to the alteration in the relative value of the metals?—And I quoted the opinion of the Bombay Chamber of Commerce. Well, then, as regards my own practical experience I am largely engaged in the import trade from India and the export trade to India, and I am able to make arrangements which completely eliminate the risk of exchange from the transactions which I enter into.

6549. It has been suggested that although you are able to make those arrangements that they must cost something, and so far add to the burdens of the trade?—Well, of course the position of each firm varies according to its credit and its capital. All I can say is that I think they do not cost me anything. I do my business simultaneously, at least nine-tenths of it, both in goods and in cotton, and other produce. When I sell my cotton in Europe, or my wheat, I buy it in Bombay; I fix my exchange one way or another, and I secure my freight. Those three items go to make up the cost. I thus secure the cotton or other produce in sterling, and I make my sale contract in sterling, and the risk of exchange is eliminated. In the same way when I make my contract for goods in Bombay I buy them in Manchester, and I fix my exchange, and the risk of exchange does not affect me afterwards.

6550. It has been suggested to us that although that may be the case as between this country and India, yet the difficulty is greater as between this country and China, because the cross currents of business, if I may say so, are not so constant; have you anything to say as to that?—I cannot speak as to China.

6551. Would there be anything in the way of difficulty as regards business between this country and China?—I should think not. I have seen it stated by some that the banks make an extra profit out of it, but my experience is that the banks compete so with each other that they do not make any profit out of it.

6552. (*Sir W. H. Houldsworth.*) It would not cost you 2 per cent. on a transaction to effect this exchange?—Nothing like 2 per cent.

6553. We have it in evidence by an Indian merchant that that is the difference?—I think there must be some mistake; it cannot be.

6554. (*Mr. Barbour.*) It gives you a certain amount of trouble and inconvenience?—A little inconvenience.

6555. And when there is any doubt about fluctuations in exchange the difficulty and inconvenience would be increased?—Slightly, in case it lasts it would increase the inconvenience.

6556. It does not stop business?—It may have the effect sometimes of stopping business in Manchester for a week, but next week there is double the business done. If you will allow me to revert for a moment to the effect of the fall in exchange upon imports of piece goods into India from this country, I should like, if you have not got it before you, to put in a return of the exports of cotton piece goods to British India, from the Board of Trade returns in millions of yards and tenths from 1873 to 1886. I lay it on the table. In the first year 1873 the exports in millions of yards were 1110·1 and in 1886 2237·6, so that they have just a little more than doubled.

6557. The import duties had been taken off in the meantime?—Possibly, indeed as matter of fact they were.

6558. (*The Chairman.*) Now as regards the effect of the fall in the value of silver as compared with gold, upon the financial administration of the Indian Government, what have you to say?—Well, I have less special knowledge about that than I have of the fluctuations of exchange, but it appears to me that the loss to the Indian Government by the fall in the value of the rupee for which the officials abroad are always harping, is very much exaggerated. There are undoubtedly certain set-offs which are lost sight of, or at any rate I do not see them mentioned. It has been pointed out that there are gains from the fall of exchange; that there is a gain for instance in the price which is obtained for the Indian opium, that the price obtained for the Indian opium is much higher than it would be if the rupee had retained its former value.

6559. As matter of fact is it much higher than it was?—I do not know, but I see the revenue has increased of recent years. In 1872–3 the revenue from opium was 8,684,000 tens of rupees and in 1883–4 it was 9,556,000 tens of rupees.

6560. You have not got the figures for 1884–5?—I have not got the more recent returns.

6561. That is the gross revenue?—No, it is the net revenue that is brought into account. I would rather not go into figures, because I have not the special knowledge.

6562. The price of opium is very low at the present time?—I do not know at all; I never deal in it. But even so it stands without argument, I think that if the rupee were at its old value it would be lower still. Then there is an increase in the land revenue, which I presume is partly owing to fresh settlements. Then there is a large increase in the revenue from railways and canals, a very large increase. That of course is very largely owing to the increase of mileage, and the development of railways generally, but I think it is also to a considerable extent due to the increased traffic arising from the stimulus given to trade. There is the increase in stamps and excise, also partly due to the same cause. I think if all these items could be properly calculated out, that they would very nearly or altogether balance the loss of 3,250,000*l.* which the Indian Government suffered in 1883–4, as compared with 1872–3, in its remittances to England.

6563. (*Mr. Barbour.*) I understand you to consider the existence of a fixed ratio for coinage has under certain circumstances a tendency to maintain fixity of relative value between gold and silver?—Undoubtedly.

6564. Do you happen to have seen an extract from a report by Mr. Raymond, United States Commissioner of Mining Statistics, which is printed as an Appendix to the Report of the Select Committee of

1876 on the Depreciation of Silver, and which shows that, according to the information available, the ratio of exchange between gold and silver in Asia Minor remained constant at 1 to 13·3 for a very long period, in fact for many centuries before Christ?—I have not seen that.

6565. I will read you what was said on this subject by Mr. Barclay Head of the British Museum, in a paper read before the Institute of Bankers in November 1879:—"The accepted value of gold as compared with silver was in these early times, and for centuries afterwards in Asia, as 13½ to 1. There is no evidence that there were the same fluctuations between the relative values of the two metals which are now so common. The consequence of this steadiness of exchange was the early introduction of what is now called bimetallism." This corroborates what Mr. Raymond states?—

6566. (*Sir T. Farrer.*) At what date was that?—(*Mr. Barbour.*) I think it came to an end about 400 years before Christ. I will also read you what Mr. Head says on this subject in a work called *Historia Nummorum* published this year:—"Silver was very rarely at this early period weighed by the same talent and mina as gold, but according to a standard derived from the gold weight somewhat as follows:—The accepted value of gold as compared with silver was in these times and for long afterwards as 13·3 to 1. There is no evidence that there were the same fluctuations between the relative values of the two metals which are now so common. The consequence of this steadiness of exchange was the early introduction in Asia of a double currency (bimetallism). The proportion of 13·3 to 1 made it inconvenient to weigh the two metals by one and the same standard, as in that case a given weight of gold would not have been easily exchangeable for a round number of bars or wedges of silver of like weight, but for 13½ of such bars; hence, in order to facilitate the exchange of the two metals, the weight of the silver shekel, mina, and talent, was raised above or lowered beneath that of the gold shekel, mina, and talent, in order that the gold shekel might be the more readily convertible into a round number of silver shekels." The fact that this arrangement was made for weighing gold and silver is fair evidence that the relative value of gold and silver must have been pretty constant?—I am quite unable to say.

6567. If the relative value of gold and silver had fluctuated very frequently, it would not have been worth while to have two units of weight for the purpose of weighing them separately?—I cannot form any opinion upon that.

6568. You have said that "for a very long period the conditions of supply and demand were such as would themselves keep the market value of the two metals at about the same ratio to each other?"—I have not said so to-day, but I have said so in my pamphlet.

6569. Do you refer to the period between 1803 and 1848?—Yes, I said that in my pamphlet, but I have not repeated that to-day.

6570. Were there no special demands between 1803 and 1848 for gold?—There was when England resumed specie payments, and therefore I omitted to say anything to that effect to-day.

6571. So that at that time the French bimetallic ratio was effective in maintaining fixity of value?—Probably it was.

6572. Did not the French law of 1803 continue bimetallism at the ratio of 1 to 15½; that was simply continuing the ratio which had existed from 1785?—I do not know.

6573. And at that time France might have either adopted silver monometallism, or gold monometallism, or bimetallism?—I presume so.

6574. It was open to her to do as she liked?—Yes.

6575. Do you think it has been an advantage to the world that she chose bimetallism at that time?—I

do not think any special advantage, except this, that she undoubtedly prevented the violent fluctuations which would have taken place when the gold discoveries took place in California, and to that extent I think she has benefited trade.

6576. (*Sir T. Farrer.*) Seeing you remember all that historical part, perhaps you recollect that when France adopted the bimetallic ratio, she contemplated an alteration of the ratio from time to time?—If necessary.

6577. (*Mr. Barbour.*) As it turned out it was an advantage?—Yes, I think so, at the time that I mentioned. I think if you could get her and the other countries, without England and India, to adopt a fixed ratio, it would probably be an advantage.

6578. But you do not think it would be such an advantage to England as to make it worth England's while to change her standard?—No.

6579. You do not consider, do you, that the standards and currencies of the different civilised countries are in a satisfactory condition at present?—I think the English currency is in a satisfactory condition. I should think the French was not. I think that the large holding of silver in France is bound to bring a heavy loss upon her.

6580. The American?—The same thing applies there.

6581. The Italian?—It is part of the Latin Union. I do not know what amount of silver she holds, but if she holds a large amount of silver she must suffer also.

6582. What would be the best solution of the present difficulty?—I have not contemplated it from any point of view but our own.

6583. What would be the best solution from our point of view?—From our point of view that we should decline to enter into any such international engagement.

6584. We should leave other nations to do what they like?—Yes.

6585. And what course on the part of other nations do you think would suit us best?—That is not a subject I have considered; I should not like to answer it off hand.

6586. There are only two courses, so far as I can see, bimetallism, or that the different countries should finally separate on this question, one set using gold and the other silver?—I should think, but of course I am giving you an opinion on the spur of the moment; it is quite a new subject to me; but I should think the most advantageous would be for them to adopt a bimetallic standard somewhat approaching the present market value of the two metals.

6587. Something between the present market ratio and the old ratio?—Not at all near the old ratio.

6588. But very near the present market ratio?—Near the present market ratio.

6589. Do you think if they all decided to use gold that it would be an injury to the world, or if France and Germany, and the Latin Union, and the other European nations finally abandoned silver altogether, and said that they would have nothing but gold, that would be a benefit to the world?—I think that is practically the present condition.

6590. They have not got rid of their silver?—No.

6591. If they decided to finally get rid of their silver, and offered their silver for sale, and used nothing but gold, would that be a net loss or a gain to the world?—I think it would have much the same effect that the decline of silver has already had.

6592. There would be a further decline of silver?—I do not think it would be on the whole on the balance disadvantageous to this country and India; of course these other countries would suffer, and suffer very greatly.

6593. Have you fixed any limit to that fall of silver, at which the benefit to England and India would cease?—No, I have not considered the subject.

6594. Do you think if the rupee went to 1s. it would be a gain?—I should not like to answer off hand beyond what I have stated.

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6595. You think that there might be a fall below 1s. 4½d., which on the balance might not be injurious?—To this country and to India.

6596. Have you any personal knowledge of the probable production of silver in future years if the present gold price is maintained?—No personal knowledge at all.

6597. Merely from what you read?—From what I read. Second-hand.

6598. I see that you have called attention in your book at page 20, to the great increase in the production of silver in Nevada?—Yes.

6599. According to the figures that I have got there has been a very great falling off in the production of silver in Nevada. The production according to the report of the Select Committee of 1876 was 22,000,000 dollars in one year, and now it appears to be about 3,000,000 dollars?—Instead of Nevada I should have said the American mines generally.

6600. But it is a remarkable fact, is it not, that the production of silver in Nevada should have fallen from 22,000,000 dollars to 6,000,000 dollars now?—Yes, it is.

6601. It shows that it is quite possible that the large production of some of the other States may fall off too?—I think that is a legitimate inference, but I have no personal knowledge.

6602. I believe you hold the opinion that by adopting the ratio of 1 to 15½ the wealth abstracted from this nation would be enormous?—Yes.

6603. Because we possess or are owed more gold than any other nation?—Yes.

6604. You do not mean that there is really more gold in this country than there is in the United States, or France, or even India?—Oh, no, certainly not; I think we hold less.

6605. You mean that we are creditors on the balance of our foreign gold obligations?—Yes.

6606. And I believe England has got obligations payable in silver?—England has.

6607. That is there are people in England who have lent money, the interest of which is paid in silver?—Yes, to a comparatively small amount.

6608. The nation as a whole would only lose on the difference between the amount of her foreign gold obligations and silver obligations; the loss would be on the balance?—Yes.

6609. And these debts that are payable to people in England, I believe are paid by the export of produce and manufactures from the debtor countries, and the produce and manufactures are sold for gold. That is how the debt is paid?—Yes.

6610. The gold price of that produce has fallen on an average about 30 per cent. in recent years?—It is very likely that is the per-centage, but it has fallen considerably.

6611. So that the debtor countries have to give, and the creditor countries now receive, about 30 per cent. more in real value than was formerly the case?—If you accept the percentage it would be so.

6612. And some portion of that increase is due to the abandonment of the old ratio?—Yes.

6613. (*Mr. Courtney.*) But a comparatively small portion I think you said?—A comparatively small portion.

6614. (*Mr. Barbour.*) Whatever portion of the increase is due to the abandonment of the old ratio, the same portion, and neither more nor less, would be lost by the restoration of the old ratio?—I do not think that exactly follows. In answer to questions, which were put to me before, I tried to show that though at first the restoration of the old ratio would only bring back that proportion of which you speak, eventually if the production of silver were very largely increased, the rise in price might be a good deal more than the fall which has taken place.

6615. But still that rise in price would have occurred if the ratio had not been changed. Even if the old ratio had never been abandoned that increase in the production of silver would have taken place?—Oh, yes, and England would have lost.

6616. I believe that when the great gold discoveries took place, gold fell in value?—Yes.

6617. You admit that the existence of the French bimetallic system, at that time, reduced the amount of fall that would otherwise have taken place?—Yes.

6618. Consequently by this reduction of the fall that would otherwise have taken place in the value of gold, gold creditors gained and silver creditors lost?—Yes. The action of the bimetallic system then was in favour of this country.

6619. Well, as gold creditors benefited and silver creditors lost by the bimetallic system after 1848, do you think gold creditors have any right to object to the system in the present day, because it may no longer work to their special advantage?—Looking at it from the British Indian point of view I simply regard the interests of this country.

6620. You are prepared to take the gain and refuse the loss?—Inasmuch as we had nothing whatever to do with the alteration of the system.

6621. You are no doubt aware that the production of gold between 1856 and 1860 increased tenfold as compared with what it was between 1831 and 1840?—If you have got the figures, I have no doubt that is so.

6622. And whatever the depreciation of the standard was, due to this tenfold increase of production, it was equally shared between the gold and silver countries?—Yes, in consequence largely of the French system.

6623. I believe the production of silver is now about three times what it was between 1856 and 1860?—About that, not quite.

6624. And having got the benefit of avoiding one half the depreciation due to a tenfold increase of production of gold, you would refuse to take any share of the loss that might arise from the depreciation due to a threefold increase in the production of silver?—Inasmuch as we had nothing to do either with the one or the other.

6625. Has there, as a matter of fact, been an excessive production of silver in recent years?—There has been a large increase.

6626. Has it been excessive as compared with the increase of production that has taken place in former times?—I do not know about former times, but as compared with what it was 30 or 40 years ago I think it is an excessive production.

6627. But it has not increased in the same ratio as the production of gold has increased?—At that time?

6628. At the present time the production of gold is probably six times what it was 50 years ago?—I have not got anything to show that.

6629. At the present time the production of gold is about 20,000,000*l.*; 50 years ago it was not above 3,000,000*l.*?—I think that there is no authoritative information on that point, but it is estimated I think.

6630. The best estimates that can be made show about six times increase?—Yes.

6631. While the production of silver has not increased to more than three or four times what it was 50 years ago?—In speaking of gold I do not refer to the production of previous years, but to the consumption for the wants of the world.

6632. I will give you some figures which I have taken from Dr. Soetbeer who gives high figures as a rule for production. He gives the annual average production of silver between 1866 and 1870 at very nearly 12,000,000*l.* sterling, and he puts the total production of silver in the 15 years from 1871 to 1885 at 328,000,000*l.* valuing silver at the old ratio of 1 to 15½. Taking the average annual production before 1870 at 12,000,000*l.* sterling, and supposing that the same rate continued for 15 years, that would give you 180,000,000*l.* sterling?—Yes.

6633. So that the excess, since 1870, over the average production of the period immediately preceding 1870 is 148,000,000*l.* sterling?—Assuming those figures to be correct.

6634. I take Dr. Soetbeer's figures. The United States, under special arrangements, have coined up to 1885 about 44,000,000*l.* of silver. This was a special demand for silver, which we may deduct from the

excess production, consequently there have been 104,000,000*l.* sterling of silver, as it were, thrown on the markets of the world in excess of the former scale of production?—Yes.

6635. Now you have no doubt heard that statisticians have estimated the special demands for gold in recent years at about 200,000,000*l.* sterling?—I have not heard it, but I am willing to assume it.

6636. Assuming that figure to be correct, it would appear that the excess available supply of silver since 1870 has been very little more than one half the total amount of gold which was required to meet special demands?—I have no doubt if you have worked it out it is so.

6637. Assuming those figures, for which I am not responsible, to be correct, that would be so?—Yes.

6638. And under those circumstances would it not be more, on the whole, in accordance with the facts to talk of the appreciation of gold rather than of the depreciation of silver, since the special demands for gold are about equal to double the additional supply of silver?—It depends altogether upon what you mean by appreciation and depreciation. I regard the term appreciation of gold as being simply equivalent to a fall in gold prices, and a fall in gold prices has taken place, and the term depreciation of silver to be equivalent to a rise in silver prices, and a rise in silver prices has taken place, and there has been thus an appreciation of gold and a depreciation of silver, yet as to the fall or the rise in price I do not attach any greater importance to the one than to the other.

6639. In what countries has that rise in silver prices taken place compared to what prices would have been, other things being equal?—It has prevented a fall in silver prices.

6640. As matter of fact you do not assert that silver prices have actually risen?—I think they have slightly; in India, I think, they are now higher, but when I speak of the rise in prices I mean the rise in prices compared with what the silver prices would probably have got to if the old system had been in operation.

6641. (*Mr. Birch.*) I should like to ask you a question to clear up a doubt. In answer to the question as to the effect on the currency of this country by the adoption of a free coinage of silver at the ratio of 15½ to 1, I understood you to say that this would lead to an increase of currency, and consequent rise of prices?—I think you misunderstood me. I did not say an increase of currency at first, an eventual increase if the production of the silver mines continued very large.

6642. I do not see how this need be, save in the coinage of the silver held over here at present in bars, now worth, say, in a proportion of 20 to 1?—I think you misunderstood me. I did not quite make the statement which you say. I think there would be at first a rise in price consequent on bringing into the currency a cheaper metal, and that eventually the rise in price would be continued by an increase of the currency if the production of the silver mines continued very large. I think that was what I stated.

The witness withdrew.

Adjourned till Tuesday.

Twenty-seventh Day.

Friday, 8th July 1887.

PRESENT :

THE RIGHT HON. LORD HERSCHELL, the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.
MR. J. W. BIRCH.
MR. HENRY CHAPLIN, M.P.
MR. J. CHAMBERLAIN, M.P.

SIR T. H. FARRER, Bart.
MR. C. W. FREMANTLE, C.B.
SIR JOHN LUBBOCK, Bart., M.P.
SIR LOUIS MALLET.

MR. GEO. H. MURRAY, *Secretary*.

Mr. BERTRAM W. CURRIE called and examined.

6643. (*The Chairman.*) You have given attention to the subject of the standard of value in this country and to the proposed changes with regard to it?—I have given them a moderate degree of attention.

6644. And with reference to the effect upon India and this country of the changed relation of silver to gold?—I have done so specially with reference to this country.

6645. And also to the remedy which has been suggested in the shape of establishing a fixed ratio between the two precious metals with the view of preserving greater stability in the currency?—I have seen the remedy that has been proposed.

6646. Will you be good enough to favour us with your view as to whether the existing standard of value in this country is satisfactory?—My view is that in this country it has never met with any objection until within very recent times, and I am unable to see in what respect it fails to perform the function for which it was instituted.

6647. You are aware of the evils which are said to exist owing to a change in its value in relation to commodities and in relation to silver?—I am aware of the evils that are said to exist, but I am very sceptical as to their being evils. I believe it is a totally new economical discovery that a fall in prices is

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an evil. It was always considered formerly, I think, that low prices were one of the conditions of well-being and prosperity. That prices have fallen in consequence of any scarcity of gold, I beg leave most humbly to doubt altogether. I think it may be proved that there are many other causes which account for the fall of prices; and I also do not understand, if the scarcity of gold has made prices fall, why prices fell most remarkably in 1857, which was the period when the gold discoveries were at their fullest development. After the panic of 1857, which was the greatest panic of which I have had any experience, there was a general collapse of credit, and prices fell. There certainly was no scarcity of gold, for it was the period of almost the greatest gold production.

6648. And I gather you do not think that there is that intimate and direct connexion between an increase or decrease in the production of the precious metal which is the standard and the prices of commodities, which is suggested by some?—I altogether fail to believe in it. I believe, on the contrary, that it is not gold alone which has an effect upon prices, but all the different media of exchange—book credits, cheques, &c.—and I am prepared to show that they have increased in a marvellous manner. If it would interest the Commission, I have prepared a table to show, first of all, the remarkable increase of postal orders, which are exactly those instruments which would displace gold, because they are issued for small sums; secondly, the increase in the number of suburban banks which evidently apply to a class of customers who would formerly have held gold in their tills, they have developed themselves in an exceptional way; in fact, I do not believe that there is a possibility of inconvenience arising from a scarcity of gold, for I think mankind would immediately set to work to find substitutes; and it most certainly can be proved that these substitutes for gold have largely increased within a recent period. If you will allow me, I will just draw attention to the table. Take the postal orders, which were only established in 1881–82. The postal orders in 1881–82 were in number four-and-a-half millions, and in amount 2,000,000*l.* sterling; in 1885–86 they were in number twenty-five and three-quarter millions, and in amount 10,750,000*l.* sterling. During the same period, postal money orders, which to a certain extent may be said to compete with them, remained nearly stationary, that is to say, the amount in the first period was 23,250,000*l.*, and in the second period 22,000,000*l.* Therefore it could not be said that the postal orders had displaced the money orders. Well, then, I have taken the following from our own experience: at Glyn's bank, 2,000 postal orders are dealt with daily now as against 500 postal orders six years ago. Then I come to the suburban cheques, which I maintain are especially used as an economy of gold, of coin. In 1880 Glyn's dealt with 620 suburban cheques daily, of which 93 were under 10*l.* and over 5*l.*, and 215 were under 5*l.* In 1887 they dealt with 1,258 daily, of which 245 are under 10*l.* and over 5*l.*, and 505 are under 5*l.*

6649. (*Sir T. Farrer.*) Would you say what you mean by suburban?—I mean by suburban banks, banks within a radius of seven or eight miles, or possibly nine miles of London; for instance the region with which I am most familiar is about Fulham, Walham Green, and such places. Anybody going down those roads will find that they abound with small shops which furnish the inhabitants of those districts, and till those people had banking facilities they were obliged to keep a certain amount of gold in their shop, but I think the suburban banks liberate those stores, in fact they act upon that class exactly as banks of the larger description act upon the richer class.

6650. (*The Chairman.*) Would these sums that you think were deposited and drawn upon in these suburban banks be to some extent a substitute for sums that were previously deposited and drawn upon in a central bank, a bank in Lombard Street for

instance?—No, I think that these banks have created a new demand altogether, that these traders are so small that previously they had no banking account and were therefore obliged to keep whatever money they had in a till. They now deposit it in the bank and in that way less coin is required, because the bank does not keep any more than it can help.

6651. Is that shown; can you tell by the increase in the total amount of deposits in the London and suburban banks taken together?—I have not with me the actual return of the deposits, but this I can tell you that the joint stock banks of England and Wales in 1873 numbered 121 banks with 1,100 branches, and in 1886 there were 119 banks, fewer banks, with 1,755 branches. Therefore there was an increase of 655 branches between 1873 and 1886. I should also like to state something with regard to country cheques, and to compare three days in 1880 with three days in 1887. In 1880 the total number of cheques drawn on country banks for which Glyns acted as agents was in three selected days 19,950, and the number of them under 1*l.* was 462, or 2½ per cent. of the whole. In 1887 the total number of cheques in the three corresponding days was 35,090, against 19,950, and 1,481 of these were under 1*l.*, 4 per cent. of the whole, so that in these seven years the per-centage of cheques under 1*l.* has increased from 2½ per cent. to 4 per cent., and the total has increased from 19,950 to 35,090. Then over 1*l.* and under 5*l.* in the first period, 1880, there were 5,229 cheques in three days, or 26 per cent. of the whole; and in the second period, 1887, there were 11,682, or 32 per cent., so that the ratio of increase is largest in the small denomination, and that I think is a strong argument in favour of what I have said, that if there was any scarcity of gold, substitutes would be found which would remove any inconvenience, or would obviate the evil of any such scarcity.

6652. (*Sir T. Farrer.*) Is a larger proportion of your business done by cheques than was formerly done, that is to say, out of the whole business is less done by payment of money over the counter and more done by cheques?—More by cheques, I think, certainly. Now, as to the scarcity of gold, I have no doubt the Commission have had this before them, but the average bullion in the Bank 12 years before 1873 was 18,500,000*l.*, and 12 years after 1873 it was 25,000,000*l.* The average bank rate 12 years before 1873 was 4½ per cent., and 12 years after 1873 it was 3½.

6653. (*The Chairman.*) You have given the average amount of bullion 12 years before and 12 years after 1873. Now, supposing there be a scarcity, where else besides in the Bank of England could that scarcity in your view be apparent?—I have always failed to see where the scarcity is; it must be apparent in some form. I imagine that none of us feel in our individual capacity any scarcity of gold. I believe that a scarcity of gold, if such a thing were possible, could only show itself in the dearness of money; I fail to see in what other way it could show itself.

6654. Taking the first period; besides the bullion in the Bank of England, the only other place in which bullion would be found would be either in the other banks or in the pockets or tills or coffers of individuals?—I imagine that would be the case, with some exceptions.

6655. Then first as regards the banks, other than the Bank of England, is there any reason to suppose that they held less bullion in the 12 years subsequent to 1873 than they did in the 12 years before 1873?—Speaking from our own experience, we hold much more, greatly against our wish. Our experience is that gold accumulates, and we have extreme difficulty in parting with it. That is owing to light gold. Light gold is now accumulating in the hands of bankers in a very inconvenient proportion, but that, I suppose, is owing to its being worth less than its nominal value.

6656. Then so far as regards private individuals, the statistics that you have given would tend to show

that they keep less money than they did before, and deposit more with the banks than they did before?—They would show that they keep less gold in their own hands.

6657. (*Mr. Birch.*) That amount of light gold which you say you are forced to keep against your will would, as a matter of course, suppose it were full weight, be paid into the Bank of England, and would increase our stock?—No doubt; no banker wishes to keep gold if he can help it, because it is a dead loss.

6658. (*The Chairman.*) You have stated that, in your view, a cheap rate of money would serve rather as an indication that there was not a scarcity of gold. On the other side, a contrary view has been suggested, that experience has established that at times when gold was unquestionably very plentiful, on the occasion, for example, of the new discoveries in Australia and America, that the rate of interest was high and not low?—The rate of interest, after the collapse which took place in 1857, became very low indeed, and, if my recollection serves me, money till 1860 was at a very low rate. After a collapse of credit money has, undoubtedly, a tendency to fall. The experience of all panics shows that—1847, 1857, and 1866—the ordinary way in which a panic acts is that money is driven up to a very high rate, that failures take place, a collapse occurs, and money becomes comparatively worthless, and that no doubt affects prices; no doubt there is an effect upon prices.

6659. (*Mr. Birch.*) At the time of a panic a high rate of interest may be no indication of a scarcity of gold, but rather of a want of confidence; the gold may increase in the bank, and the rate may yet remain high on account of the want of confidence?—The usual form is, exchanges take an unfavourable turn, gold leaves the country, prices rise, weak persons are pinched, and suspend payment. There is a general collapse of credit and confidence, and money becomes of comparatively very small value.

6660. (*Sir T. Farrer.*) Is not the rate of interest in this case, when it is paid, the price that is paid for gold?—Clearly the rate of interest is raised in order to retain that commodity in the country.

6661. (*Mr. Barbour.*) Would you say that the interest is paid for the use of capital or for the use of gold?—I am only speaking now of the experience of what has happened. The Bank of England, upon an export of gold taking place, raises the rate of discount, that is to say, bids higher for gold in the markets of the world against its competitors, and experience shows that by so doing it obtains the commodity for which it bids a higher price. The gold may be said, I suppose, to be capital, because it forms part of its stock, it forms that which it wishes to retain.

6662. (*Sir T. Farrer.*) Is it not at that period that gold becomes especially important. When credit is good, gold is not so important, but when credit is bad, and there comes a panic, then gold becomes of more importance?—Well, I should say when gold in the bank falls below a certain point the public becomes uneasy and has less confidence, and the bank must resort to the only way of increasing the quantity of gold by raising its price.

6663. (*The Chairman.*) I understand the suggestion to be that the scarcity of gold has not only affected this country, but that the smaller quantity of gold produced has had to serve the purposes of nations which have previously used silver. Of course so far as that view is sound it would not matter from which country to which country gold flowed for the moment, as regards prices?—The production of gold, as I understand, has been enormously greater in modern times than it was in any previous times. It is now stated that between 1850 and 1875, more gold was produced than during the whole previous period. That surely must have supplied mankind with a larger stock of gold than they ever had before.

6664. Then I think it is put as against that, that mankind are more numerous than they were before?—Then I answer to that, that we use banking facilities

which they did not use before, and the more civilized nations become the less gold they want.

6665. You have given us some important statistics with reference to the increase of banking facilities in this country. I do not know whether you are able to give us any information as to whether banking facilities have increased in other countries, such as Germany, France, and Italy, which have of late used gold either in place of silver or where before they did not use it?—To that I can only give you the general answer, that since 1860 great credit establishments have arisen in France, such as the Société Générale and the Crédit Lyonnais, which attract deposits, and which by their published returns show that their deposits are equal to those of our principal banks; therefore, I suppose there can be no doubt that persons not formerly in the habit of depositing money in banks now do so. In Germany I suppose it would be the same, but I cannot speak with so much certainty.

6666. (*Sir W. H. Houldsworth.*) Have you made any calculation as to the banking facilities, including postal orders and the other things that you mentioned, whether the proportion is at all equal to the increase of the population?—I think the statement I made will show that, because if postal orders between 1881 and 1886 have increased from $4\frac{1}{2}$ millions in number to $25\frac{3}{4}$ millions in number, and from 2,000,000*l.* in amount to 10,000,000*l.* in amount, I imagine the population has not increased in an equal proportion.

6667. (*The Chairman.*) You have hitherto been speaking of the effect of the existing standard, and of a change in the value of gold in relation to commodities in this country; have you considered specially the question of the change between the relative values of gold and silver as affecting the relations commercial and financial between this country and India?—I hear a great deal of that because I am connected with the Government of India, and of course I have heard many complaints made, and a great many remedies proposed. I am extremely sceptical as to any benefit that will arise from legislation on that point. I cannot help thinking that if silver ever is produced, as I have seen it stated by some recent writer, at a price like 5*d.* an ounce, it will become thoroughly discredited and obsolete and will cease to be used as the money of the world. But if such a thing is to happen, I think that all that legislation could do would be to follow the habits of the people, and that it would be extremely dangerous and ill-advised for the Government of India to take any steps in advance. All the steps that have been recommended and of which I have any knowledge, appear to me to be highly dangerous, very uncertain in their operation, and almost certain to aggravate the evil.

6668. I gather that you allude to the financial inconvenience of the varying relation between silver and gold in reference to dealings between this country and India?—I am chairman of the Finance Committee of the Council of India, and therefore it is a subject which I hear very frequently mentioned; I am very much alive to its inconvenience.

6669. But I gather that your view is that the suggested remedy of those who advocate bimetallism would not be a satisfactory one?—What I would wish to insist upon here, if what I say has any weight at all, is the utter unwisdom of our attempting such a remedy. About India I am in a difficult position. Although I disbelieve in all the suggested remedies, I should like to appear here simply to say that any tampering by legislation with the standard in England would be one of the most fatal measures that could be adopted, and I think I can prove that a great part of the prosperity of this country and its commercial supremacy depend upon that; and as to India, if any remedies can be found out I think they must be found out in India itself. I think the people themselves will, if the necessity arises, by some process of selection, arrive at the proper remedy,

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and that anything that legislation could do would do no good, whereas it might do infinite harm.

6670. Confining your view to its effect upon this country, would you first of all tell us why you say that the financial prosperity of this country is greatly due to the present standard?—I say it for this reason, that the fact that Great Britain is the only country where there is a real gold standard, the only place where, if a man has a bill for 100*l.*, he knows what he has got, and he knows that in all cases he can obtain for his bill for 100*l.* a certain quantity of gold at a certain weight and fineness, attracts business to this country, and I think it can be asserted without fear of contradiction that the main reason why the great financial establishments of Europe have come to London and established themselves here is the fact that this is the only country in which there is a real gold standard. I daresay the Commission know that the gold reserves of the Continental banks all over Europe,—Germany, Austria, and France,—consist largely of bills upon London, which are looked upon by those banks as an absolute gold reserve. They are also held by the great railway companies in France who have their money accumulating, who have deferred payments to make, and wish to have a medium of exchange which is of absolute certainty. Therefore they hold bills upon London. The effect of that is to make bills upon London the cheapest in the world. Bills are very often discounted under the ruling rates in order to be sent abroad for those banks to hold. That is a decided gain to this country. No bill can be drawn upon London without a profit of some sort being paid. There is another fact I would mention in illustration. Quite recently the London exchange on France has been above the gold point, and on Italy largely above the gold point. The meaning of this is that gold is not to be obtained freely either in France or Italy. Of course, if it were to be obtained as easily in France or Italy as it is in England exchange could not rise above the point which represents loss of interest together with the charges for sending gold from France or Italy to London. In the case of Italy this recent rise in exchange meant a loss of $1\frac{1}{4}$ per cent. That is the tax they pay for not making their gold standard effective. If you hold a bill for 100 *lira* on Italy or 100 francs on France, you cannot go and get gold for them, and I maintain that it would be most unwise for this country to follow such an example. The man who takes gold from us does not commit an unpatriotic action, as he is considered to do in Germany or France, because he does not take the gold without paying for it. Any interference with the absolute convertibility of the banknote into gold of a certain weight and fineness would, in my opinion, be suicidal in this country.

6671. Do you think it would be practicable?—No, I do not. I believe that if Parliament in its wisdom were to attempt to enforce anything like this bimetallic arrangement, the principal dealers in the city would immediately contract themselves out of it. I feel quite convinced that, if such a thing were possible, banks would say “I will lend you 100*l.*, but “on condition that you will pay me in gold.” My belief about silver is that, as far as we are concerned, it is obsolete, and discredited, and that it is not laws which make silver and gold valuable, it is the belief and practice of mankind. As far as I understand, in India the belief of mankind in silver is still unshaken. They value it there, but in Europe they are ceasing to value it. All nations have shown the greatest alacrity to get rid of it. We never heard anything of bimetalism when gold was taking the place of silver. It is only when there is a prospect of silver coming back again to displace gold that we hear of proposals to give it an artificial value.

6672. (Mr. Barbour.) That is, there were no complaints so long as the fixed ratio was maintained?—

Yes, but the fixed ratio really always acted to drive out the dearer metal.

6673. There were no complaints when gold was taking the place of silver, and the fixed ratio was maintained, but as soon as gold began to alter in reference to silver, and was not maintained at a fixed ratio, complaints began to be made. If the fixed ratio had driven out gold and given you silver, complaints ought to have been made when silver was being driven out?—I think it is the alarm people feel when they see their gold stock replaced by silver stock which causes all the trouble.

6674. (The Chairman.) Then you think the preference for gold over silver is not based upon any law, but upon the tradition or experience of the people?—Entirely so. I think it is based upon an experience of its greater convenience, and that it would be perfectly hopeless to persuade people now to exchange their gold for silver.

6675. (Sir W. H. Houldsworth.) Do you think that that feeling will find its way into India gradually?—I cannot help thinking, if I may be allowed to indulge in speculation, that in the course of time some substitute for gold may be found in this country, and that India may find some substitute for silver. But it is evident, I think, that silver cannot continue to be used as money if it is produced in those enormous quantities which some writers pretend.

6676. (Mr. Birch.) I suppose you refer to the tabular system?—I had a paper sent me in which a writer makes out that silver can be produced at 5*d.* an ounce. What amount of truth there is in it I do not know.

6677. I never heard of silver being produced at that price?—It is possible some individual producer may produce it at that, and make a difference of profit, but the cost of production at different mines varies a great deal, and the profit of the miner is the difference between the cost at which he produces and the price of silver. It is the price paid for the production of silver at the least productive mine that would regulate it, clearly.

6678. So that the fact that a miner produces silver at 5*d.* an ounce would only affect his individual profits?—It only affects his profits. I am not for a moment saying that it is not so; I am merely saying it is stated that silver can be produced in large quantities at 5*d.* an ounce.

6679. (The Chairman.) It is quite clear that the price would be that at which it can be produced at the least profitable mines. Would there not be rather a tendency, if you had a mine where it could be produced very cheaply, to bring down the price?—It would depend, I think, upon the quantity of cheap silver; I imagine that the cost of production is not exactly the same in any two silver mines. The conditions are different, and no silver mine can be permanently worked which does not leave some profit.

6680. (Mr. Fremantle.) And therefore the tendency would be to shut up the least productive mines?—No doubt a fall in silver actually does shut up the least productive mines.

6681. (The Chairman.) And to shut up the least productive mines, to reduce the price to that at which it could be produced at some profit, in mines that were not shut up, mines something short of the least productive?—I imagine a fall in the price of silver, like a fall in the price of any other article, tends to limit the production. There is a price at which people cannot grow wheat or turnips, or anything else, and if the commodity falls below that price the production stops.

6682. (Mr. Barbour.) Do you hold that the supply of gold has no effect on prices?—I think it has only a very doubtful and indirect effect.

6683. But you would not go so far as to say that it has no effect?—No; I do not say it has no effect in conjunction with other media of exchange.

6684. If it was as common as copper, prices would

be very much higher than they are now?—Yes; I imagine they would.

6685. Have you formed any opinion as to why gold and silver have varied in relative value?—I imagine that they vary in value according to the quantity produced; I can see no other ground upon which they vary.

6686. Not according to the demand and supply?—You mean the relative demand for gold, or the relative demand for silver.

6687. According to the ordinary principles one would say that the value of silver depended on the supply of silver and the demand for it?—That is the thing which governs the value of silver—the quantity produced, and the demand for consumption.

6688. And in the same way the value of gold would depend upon the supply of gold and the demand for it of all kinds?—Certainly.

6689. So that if the demand for gold increased, the value of gold would rise?—If the effective demand for gold were to increase while the supply remained stationary the price of gold would rise.

6690. You say that there have been great economies in the use of gold in recent years. These economies have been chiefly in the western countries?—Yes; those of which I am aware are in England.

6691. England, France, Germany, and so forth?—Yes.

6692. And I believe that in the eastern countries where silver is used, these economies have not been carried to the same extent?—I imagine not to the same extent.

6693. So that, so far as that is concerned, one would rather have expected gold prices to rise and silver prices to fall?—Well, I cannot admit that; because, although gold may be one element of price, I altogether deny that it is the only element.

6694. There must be other elements?—There must have been other elements of prices.

6695. By inventing expedients for economising gold, you reduce the demand for gold?—Less gold is required.

6696. And therefore gold would become of less value *pro tanto*; and consequently gold prices should be rather higher?—It might be in fact. But I feel myself unable to answer. That is the sort of question to which I can only reply by saying what has happened; not what might have been expected to happen.

6697. I am only asking is not that the tendency?—Yes, other things being equal it must be so, I think.

6698. You say that it is of great importance to this country that persons who buy bills on London should know that they can certainly get gold?—I look upon it as of very great importance.

6699. We have had some evidence here to the effect that in commercial transactions gold is hardly ever required?—It is rarely required, because it is certain to be got.

6700. But it is of importance that you should be able to get it in case of necessity?—I think it of primary importance, and I think it would be much oftener asked for if those who might require it were not certain that they could get it when required.

6701. Then is the supply of gold in this country sufficient to meet all likely demands on it?—I think so, and if not the supply could be easily supplemented by an increase in the rate of interest.

6702. Where would the gold be drawn from in that case?—It would come, I imagine, from the reserves of other countries; where experience shows it does come from.

6703. But would it not be just as cheap to a man who wants gold to get it direct from the other banks, as to get it from England and force England to get it from other banks?—But I imagine we are speaking of the policy of this country. The evidence I have come to give I understand is this, that it is not expedient for this country or Her Majesty's Government to make any change. I maintain that it would

be most unwise, and suicidal for this country to depart from its gold standard.

6704. But I merely ask you whether there was any inconvenience in getting gold if a man had to come to England for it and England could not supply him unless she got it from abroad. Are you not in the last resource driven abroad for gold?—As long as the Bank of England charter lasts, the Bank of England is bound to pay its notes in gold. I can exchange the due bills which I hold for notes and I can exchange the notes for gold. The Bank of England, as experience shows, has been able to pay gold without any difficulty, and I do not want the system altered.

6705. (*Mr. Birch.*) Is not the reason rather that when a man takes a bill abroad, on England, he knows that he will receive gold for it, and that if he takes a bill upon any other country, he takes a bill not knowing whether it will be paid in gold or silver?—I contend that the preference that a man has for a bill upon London, and the reason why he uses it as a gold reserve is due to its being indisputable that it will be paid in a single metal of a certain weight and fineness.

6706. (*Sir John Lubbock.*) He knows what he will get for his bill?—The way in which it acts I think is this. The great continental banks and French railways get bills on London, which they know they can make no loss upon. They know they will always get the gold price in their own countries, or what must be equivalent in gold, minus the charges.

6707. (*Mr. Barbour.*) Might not that be in some respects an inconvenience to England. Supposing there was a panic somewhere, a great deal of our gold might be drawn away?—I disbelieve that. I think if it is drawn away it is a profitable operation for us, not an evil. We only lose it for value.

6708. Does not that for the time being cause a fluctuation in the rate of interest?—It is a minor inconvenience. You could only get a steady rate of interest by not employing your money closely. If you employ it closely, interest will be very sensitive, and fluctuate. I have nothing to show that anybody has suffered. I do not know what the evils are.

6709. (*Sir John Lubbock.*) They cannot demand payment of the bills until they become due, and the bills that are held are undue bills?—Yes.

6710. (*Mr. Barbour.*) Then it is rather our banking than our commercial supremacy that depends on the gold standard?—Perhaps I should have said our financial supremacy, but the two are intimately connected.

6711. Does not England enjoy a great many natural advantages which she would not lose no matter what the standard was?—I do not say she would not keep them if she parted with the gold standard, but if she did so she would be in very great danger of losing her supremacy. I do not know any other reason that attracts these great credit establishments to this country.

6712. Then if France could get rid of her silver entirely, or Germany, and have a purely gold standard our financial supremacy would practically come to an end?—That I am not prepared to say at all. I do not go farther than this, that we have got the supremacy and we must keep it; if we tamper with our standard we should render it very doubtful whether we could keep it; that is what I think is the danger.

6713. I think you have said that experience has shown that gold is the most satisfactory standard that could be found?—I think nothing better has been found as yet.

6714. Do you mean as a standard for deferred payments, or do you mean for the purpose of banking?—I am aware that objections have been taken to it as a standard for deferred payments, and it is possible that something better may be invented. I by no means assert that mankind in the course of time will not develop something better. My own opinion is that possibly something will be invented by the ingenuity of the commercial class to take the place of gold, but that cannot be done by Government, and it would be premature at present for Government to interfere.

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6715. You think its inferiority as a standard for deferred payments has at any rate not been proved?—I think objections have been made to it which are plausible.

6716. I believe we have had a long experience of the gold standard in this country?—We have had about 70 years.

6717. The silver standard was formally abolished in 1816?—Yes.

6718. And I think I am right in saying that we have practically had gold as the standard of value since the time of William III.?—I believe so.

6719. Since the time of the great recoinage gold has been practically the standard?—Yes.

6720. If you take that date as 1700, do you think it may be said that we have practically had a gold standard for 187 years?—I imagine we have.

6721. Are you aware that from 1700 to 1872 the relative value of gold and silver remained almost constant, or at any rate that there was no very great change. I can give you the figures. In 1700 the market ratio was 1 to 15, and it fluctuated somewhat after that, but the lowest average to which it went was 1 to 14·56, and the highest point to which it went was 1 to 15·83, and in 1872 the ratio was 1 to 15·56, so that there were few serious fluctuations in that time?—I am aware that the fluctuations were small.

6722. But during the last 15 years the relative value has fluctuated from 1 to 15½ to, I believe, about 1 to 21½, so that if you take the whole time over which our experience of the gold standard extends—187 years—we find that for 172 of those years we had comparative fixity of relative value in gold and silver, and for only 15 years have we had serious fluctuations?—Yes. One reason why that is so is that the production of gold has been enormous and extraordinary. It has been stated by a writer of repute that more gold was discovered between 1860 and 1875 than during all the previous period. Therefore nations which had a preference for gold were able to do what they never did before; they were able to get gold and substitute it for their silver.

6723. Are you aware that there was some reduction in the production of gold in the early part of the present century?—I do not say it was always equal, but the production of gold in California and Australia was on an entirely different scale.

6724. Well, as matter of fact, the relative value of gold and silver remained pretty fairly constant for 172 years, and for 15 years there have been great fluctuations?—That is true. The price of silver has fallen to a degree that it never did before.

6725. May it not be a question whether gold has been as good a standard during those 15 years as gold and silver were during the previous 172 years?—I say that silver has not been so good a standard. I do not know that gold has failed to perform any of the functions of the standard.

6726. Do you think gold would have been as good a standard between 1800 and 1872 if there had not been a bi-metallic system in France?—Yes, that would not in my mind have affected the thing at all as a standard for this country.

6727. Did not the existence of bi-metallism in France in 1820 facilitate the resumption of specie payments by England?—That, I am sorry to say, is a subject which I have not considered, and a question which I feel myself unable to answer.

6728. But at any rate I suppose you would agree that the existence of bi-metallism in France in 1848 and subsequent years prevented the depreciation of gold?—Well, I have great doubts myself whether the maintenance of that system has not aggravated all our evils; whether it has not given an artificial value to the metal which ought to have declined, and I question whether the decline of silver would not have been far more gradual and less injurious if it had not been for this artificial stimulus given to it.

6729. But was not the artificial stimulus after 1848 given by bi-metallism to the value of gold, and

not to the value of silver?—The way in which the bi-metallic system answered after the gold discoveries was no doubt to banish silver and introduce gold into circulation. The metal which was the cheaper at the time took the place of the metal which was the dearer.

6730. That is to say, the bi-metallic system held up the value of gold?—It held up the value of gold no doubt.

6731. If there had not been bi-metallism at that time would there not have been greater depreciation?—Probably. That is to say, unless France had discarded its silver and had adopted gold.

6732. You are no doubt aware that there has been a great demand for gold for America since 1876; that whereas before 1876 America was largely exporting gold, since that time she has been importing gold?—Yes, I am aware of that.

6733. And you are no doubt aware that there has been a considerable change as regards the import of gold into this country, that before 1876 we were importing on the balance, and that since that date we have not been doing so?—Quite so.

6734. If bi-metallism had existed in the Latin Union and in America, would it not have been an advantage, inasmuch as that demand by America for gold could have been met partly by silver?—Yes, I deny the principle. I deny that there has been any such strain on the gold supply as to cause an inconvenience to us.

6735. But I think you said that a demand for gold increased its value. If there were a fresh demand by America, gold must *pro tanto* have increased in value?—But what evil is done thereby if it has?

6736. Do you think that a fall of prices due to an appreciation of the standard is no evil?—I think a fall in prices is no evil.

6737. A fall of prices due to a cheaper production of commodities would be a gain?—I ask no questions as a consumer. A fall in prices benefits me.

6738. You think it makes no difference whether a fall in prices comes from cheaper production of commodities or appreciation of gold?—I deny altogether that the fall has arisen from a scarcity of gold. When I buy commodities it seems to me that I should get as much as I can for as little money as I can. That is my object, and the object of all the community.

6739. Do you think that if bi-metallism was established in this country silver would not circulate?—I think it would not be received in payment.

6740. If it were made legal tender, could you help receiving it?—I understand in America there is extreme difficulty in getting people to receive it.

6741. I believe there the Government does not force you to take it or allow free coinage?—You cannot force me to take it, because if you have to pay me 5*l.*, I will not take it in silver. I maintain that you cannot make people use a money which they are not accustomed to.

6742. You have heard of Gresham's law, which says that the cheaper money drives out the dearer; do you think that would not be effective in putting silver into circulation?—Not if mankind refuses to take the cheaper money.

6743. That assumes that mankind universally refuses to accept silver, but if Parliament passes a law making silver a legal tender, at least half the country must be in favour of it?—But if silver, why not coal, or shells, or leather. I believe silver to be obsolete. It is discredited, and you could not force it on the English people any more than you could get them to take shells.

6744. I will read you a passage from Ricardo on this subject: "It is not then a matter of chance; it is not because gold is better fitted for carrying on the circulation of a rich country, that gold is ever preferred for the purpose of paying debts, but simply because it is the interest of the debtor so to pay them." Would you agree with what Ricardo

says, that the debtor will pay with the cheaper metal?—He is doubtless speaking of a country in which debts may be legally paid either in gold or silver, but that is not the case as regards this country.

6745. You think the English people would prefer gold, and want gold?—I should think they would if they could get it.

6746. Are you aware that the free coinage of silver in this country was stopped by legislation in 1798?—Yes, I have read so.

6747. It has been said that before that date the English people had taken to gold because they preferred it?—Yes, I have heard that said.

6748. I will read you a portion of the Act of 1798. It was passed about 100 years after the time in which gold practically became the standard, so that the English people then had had experience of gold for 100 years. This is what is written in the preamble of that Act: "Whereas from the present low price of silver bullion, "owing to temporary causes, a small quantity of silver "has been brought to the Mint to be coined, and "there is reason to suppose a still further quantity "may be brought, and it is therefore necessary to "suspend the coinage of silver for the present; be it "therefore enacted." Assuming that the English people chose gold owing to a preference for that metal, and not because it was the cheaper metal for paying debts under the circumstances of the day, is it not remarkable that 100 years later they should have begun to coin silver again just at the moment when it happened to get cheaper. In 1798 a law was passed to prohibit the coinage of silver because, owing to the cheapness of silver, it had begun to be coined. At that time the English people had had experience of gold for 100 years, but the moment silver became cheaper than gold for the payment of debts they began to coin silver. Is not that a proof that people chose, not gold as against silver, but that metal which was the cheaper, for payment of debts?—I should say that the preference which they have for gold—I do not say it is a preference which has always existed, because I imagine at earlier stages of mankind silver was unquestionably used—I am only speaking of the present state of things, and I deny that you could now make the English people, who have had at any rate 70 years' experience of gold since 1816, use silver as money in the place of gold. That is my contention.

6749. (*Mr. Fremantle.*) But was not the legislation of 1798 simply the result of that fact, that if persons brought silver to be coined at the Mint they could do so at a profit. They bought the silver in the market and used it as money?—I imagine that the silver coinage then was a real silver coinage, not a token currency.

6750. So that there was a profit upon its conversion into coin at the Mint, and that was quite sufficient reason for its being brought in and coined?—I imagine that the legislation of 1798 took place because silver was being substituted for gold.

6751. (*Mr. Barbour.*) No doubt; but that coinage of silver and substitution of silver for gold was being done by the action of the people, and the Legislature interfered to prevent it?—The Legislature interfered to prevent it because they were afraid of losing their gold.

6752. (*Mr. Birch.*) You say that low prices are a sign of prosperity in some way, but if they are so low that you cannot cover the cost of production are they beneficial?—I do not think that I said that low prices were a sign of prosperity. I said that I could see no evil in low prices; that the object of mankind individually and collectively is to get their commodities as cheap as they can.

6753. Mr. Barbour questioned you as to what would be the effect if the gold standard in France and Germany was made effective, and he asked you whether in that case those countries would take the supremacy from us. Now, I suppose you would allow that besides the question of the gold standard there are many other things which combine, and that

the gold standard is only one point, but one essential point?—Certainly many other things combine.

6754. With reference to the rate of discount and its effect on our stock of gold, I think it must be borne in mind that foreigners generally keep heavy balances here, and that at times in a panic they withdraw these balances, and the raising of the Bank rate has not always an immediate effect?—Well, I think you must distinguish what you mean by panic. I do not see why foreign balances should be withdrawn simply because money is dear.

6755. Foreign balances are certainly not withdrawn because money is dear, but I refer to a panic arising from a want of confidence, a shaking of confidence in bills?—But large sums of money come, when the continent is disturbed by war or revolution, from foreign nations, and that money would not be withdrawn merely on account of dearness of money.

6756. There is an idea abroad that the suspension of the Act of 1844 is a suspension of specie payments. Should the Act be suspended they get frightened abroad and think they will not get their gold when the bills fall due; sometimes they withdraw very large balances, and the effect in the rate of discount is felt immediately. That is one of the effects of it?—It naturally would be if such apprehension were felt.

6757. Then I gather from what you stated that, although you acknowledge that there has been a certain appreciation of gold, inasmuch as a sovereign buys more commodities than it did some years ago, that this rather arises from a depreciation of commodities, say a fall in their value, than from any serious scarcity of gold?—Yes, my belief is that the fall in prices is not the result of any scarcity of gold.

6758. And that banking facilities have taken the place in a great measure of the precious metals?—And that the prices of many commodities may be shown to have fallen in value utterly irrespective of gold.

6759. (*Mr. Chaplin.*) When you say that you see no evil in low prices, do you mean however low?—Prices cannot fall below a certain point. Cheap goods are better than dear goods I maintain.

6760. If the price for agricultural produce for instance, and for mining products were to fall so low as to put a great quantity of the land of England out of cultivation, and to cause a great number of the mines to be shut up, would that be no evil in your opinion?—I doubt if such a thing is possible.

6761. Is it not a fact that owing to the low prices, large tracts of country that were formerly profitably cultivated in England have gone out of cultivation and are now producing nothing?—If that is so it is because they are unsuited to the production of these commodities.

6762. But I am speaking of land which produced these commodities at great profit not very long ago?—That is the general fate of mankind. Somebody else has found that he can produce them cheaper and better.

6763. Well, we will deal with the question of mines. They can produce only what is in the mine, and you think it no evil that the price of iron or coal is so low as to cause those mines to be shut up?—I should think it would be no evil at present if a certain number of mines were shut up, because they are worked unprofitably.

6764. You think it would be no evil to the general interests of the country, though it might affect injuriously some particular interest?—I do not think the opening of mines is necessarily desirable in itself; it is only desirable if the business can be conducted at a profit.

6765. And if owing to the present state of things that business had ceased to be able to be conducted at a profit, that many mines were shut up, and that thousands of people were put out of employment, would you still say that that is no evil at all?—I would not say that it is no evil, but it is a necessary evil, and one that would correct itself.

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6766. Then you admit that there is some evil which arises from the present state of things?—There is always an evil when any individual or any body of men is in want, but the question is whether the remedy proposed would not aggravate the evil.

6767. There may be differences of opinion as to the remedy, but as to the fact you do admit that there may be some evil?—Well, I should say the sooner an unproductive industry is stopped the better, be it agriculture, or mining, or anything else. If it ceases to be productive it is no benefit to the country to continue it.

6768. If the fact of its ceasing to be productive has arisen as some people think from the fall in the price of silver?—There I may say that I am so utterly unable to connect the two things that I do not see what connexion they have at all.

6769. You do not see that the fall in the price of silver may have very seriously affected certain industries in this country?—No, I do not see it.

6770. You do not know any instance in which it has?—No, I do not.

6771. Now let me ask you one or two questions with the view of ascertaining from you whether, supposing my information is correct, the agricultural industry in particular, has not been seriously affected. You admit, I suppose, what has been stated by a great number of witnesses, in evidence, that the rupee in India still maintains its original purchasing power, whatever that may have been?—Yes, I have no reason to think that it has very much changed.

6772. Well now, are you aware that the Indian producer, as a matter of fact, is getting more rupees for his wheat now, although he only gets 1*l.* 10*s.* per quarter for it in England, than he did when he was getting 2*l.* a quarter?—Yes, I should be willing to admit that; that, practically, the price is about the same as far as I know.

6773. The English producer of wheat, on the other hand, is losing at least 10*s.* a quarter—that you admit?—If you say so I have no doubt it is so.

6774. Under those circumstances I suppose you would agree that he is competing at a very great disadvantage with the Indian producer of wheat?—I admit that.

6775. And this great disadvantage has been brought about solely by the fall in the price of silver?—I would not admit solely, but that to some extent that has stimulated the production of wheat, I think is probable.

6776. You admit that to some extent it has imposed a great disadvantage on the English producer of wheat?—Yes, I can admit that; but it is no more an evil than in the case of any other manufacturer or dealer—any person who can undersell. I do not see the evil.

6777. I grant you do not see the evil, I had passed from that question. What I was trying to elicit from you now is, whether you had not arrived at the opinion that there were some industries which were suffering directly from the fall in the price of silver?—Directly, I should doubt. That the wheat growing industry is suffering from the competition of Indian wheat I have no doubt, and that one of the causes of the depreciation of Indian wheat is the fact that the people are ready to take a certain amount of silver in exchange for it. That I admit.

6778. Then you admit that the fall in the price of silver is one of the things which has seriously affected the wheat-growing industry of England?—Well I should prefer to put it in this way: is one of the things that has lowered the price of wheat.

6779. But one of the elements which has lowered the price of wheat has been the fall in the price of silver—you admit that?—It has had the effect of stimulating the Indian production; I would not say it is the sole element.

6780. Then we have arrived at this, on your own admission, that there is one industry which has been injuriously affected by the fall in the price of silver?

—There is one commodity the price of which has been lowered by the fall in the price of silver.

6781. And the fact of the price of that commodity having been lowered would injuriously affect that industry which produces that commodity?—If it is always desirable for industries to produce at a high price.

6782. I think I gather from your answers that you do admit now that the wheat growing industry in England has to some extent been injured by the fall in the price of silver?—I admit that the wheat-growing industry in England has had the severe competition of Indian wheat, and that the production of Indian wheat has probably been stimulated by the fall in the price of silver.

6783. (*Mr. Birch.*) But in the same way that Russia having a paper currency has come in, in a greater degree, to affect us?—And Chili, with its copper.

6784. I mean all these competitions come in from countries which have a debased currency?—Yes.

6785. (*Mr. Chaplin.*) Well then the adoption of the bi-metallic theory would obviate that particular disadvantage so far as it arises from the fall in silver?—I ventured to say before that I believe it to be impossible.

6786. But assuming that it was possible and was adopted?—Yes, but I understood that what I was asked was, did I think it possible or desirable. I consider it impossible and undesirable.

6787. A great many witnesses have agreed that it is desirable and perfectly possible, and on the assumption that it was done, I want to know whether you do not admit that it would do away with this artificial advantage which the Indian grower of wheat has at present over the English grower?—If you could persuade mankind that 15 portions of silver are as good as one of gold, if they would accept that decision apparently it would have that effect.

6788. That is to say, the adoption of the bi-metallic theory would equalise the position of the English and the Indian grower of wheat in that respect which I pointed out to you?—To whatever extent the Indian grower is stimulated by the fall in the price of silver undoubtedly it would, but I do not think that is the only advantage which the Indian grower has got. I think he has got others, better climate, better quality, and lower wages.

6789. (*Sir T. Farrer.*) The stimulus you speak of, assuming it to exist at all, would only exist pending the fall. Supposing that we had silver and gold at a permanently fixed ratio, for the future there would be no such stimulus in the export of Indian wheat as Mr. Chaplin has spoken of?—No, there would be no stimulus in the future at present prices.

6790. But the advantage which the Indian producer has had in consequence of the making of railways in India, and the opening of the Suez Canal, and the lowering of prices would remain?—It would undoubtedly.

6791. Have not those things had a greater and more permanent influence in lowering the price of Indian wheat than anything that may happen in regard to silver and gold?—I said silver has had a certain effect, but certainly it has by no means had the sole effect in stimulating the cultivation of Indian wheat for exportation. It has been stimulated by many causes, and especially by facilities of transport.

6792. Those are the *vera causa* which must continue to exist?—And increase I should say.

6793. The fact whether gold or silver has affected it is matter of dispute?—Yes. It is not for me to pronounce any decision upon it.

6794. The extension of facilities of transport, the making of Indian railways, and the opening of the Suez Canal are true causes, certain and permanent causes of reduction in the price of Indian wheat?—They must be so.

6795. And those same causes operate to reduce the price of American wheat and other wheat all over the world?—I should say that they must be the same.

6796. Therefore, assuming it would be a good thing to raise the price of wheat, the English wheat grower would get very little advantage out of the alteration of the relation between gold and silver?—I do not see how he would benefit by it.

6797. I want to understand distinctly what is the position of London as regards the financial centre of the world. Is it that it is a sort of clearing house to which all debts are referred and through which they are paid?—Yes; I think its peculiar position is, that it is the only centre upon which bills from all parts of the world can be drawn. Wherever there is an exchange of any sort there is an exchange upon London. Bills upon London are always in the market; everybody has debts to pay in London, therefore everybody wants bills on London.

6798. Just as it is the centre of the business of England it is the centre of the business of the world?—It is.

6799. Bills from all parts can be sent to London and exchanged there?—Yes. A New York merchant wishing to buy goods in the East is obliged to supply himself with a credit upon England. That is distinctly to the benefit of London.

6800. London becomes a sort of bank for the whole world?—Yes.

6801. (*Mr. Barbour.*) Granting that there is a facility in drawing on Hong Kong from America through London, is that facility due to the existence of the gold standard in England?—I do not know of any such facility.

6802. (*Sir T. Farrer.*) London is a sort of centre of banking which never existed before?—Yes.

6803. The gold sovereign is the language in which it carries on its transactions?—Yes.

6804. To disturb that language might very easily lead to the disturbance of that practice?—I have a very strong conviction that anything which would shake the faith of mankind in the fact that what 100*l.* means is a certain amount of gold of a certain weight and fineness, might disturb it very materially.

6805. If we were to say 1*l.* represents so much gold or so much silver, that might very likely disturb the relations which exist between London and its customers over the world?—That is my belief.

6806. In fact, you think it a dangerous thing to interfere with the tokens and the names and the forms in which that business is carried on?—I do. I believe that mankind have a preference for gold, that they universally wish to acquire gold, and that what they seek for in a bill upon London is a certain amount of gold. That they do not often use it I quite admit, but that is because they know that they can get it.

6807. There are two different things, are there not; gold operates in one way as a medium of exchange; but this it does only occasionally and to a very small extent; it also and in another way operates as a standard for all transactions?—Yes.

6808. And you think that it would be a very dangerous thing for the financial supremacy of London to alter that standard?—I do.

6809. It would be like altering the yard measure in a trade?—Yes. I think what mankind wish for is certainty in their dealings, and that they have a great dread of uncertainty or of dispute as to what is the value of the commodity that they have got.

6810. You have said that the value that people attach to currency depends upon their habits and their desires, and that the law is effective where it follows these habits and desires. Should you think that the habits and desires of the community of London are in favour of gold?—I do most emphatically think so.

6811. And you think that if the law said they should receive so much silver instead of gold, or so much silver as equivalent to so much gold, there would very likely be a revolt against that on the part of financial people?—My belief is that they would immediately associate themselves to repudiate it, and that they would say: "Whatever the law is, our dealings are to be in gold."

6812. And they would do that whether the new

bi-metallic ratio was 20 to 1 or 15 to 1, or whatever it was?—I do not think they would care anything for silver; it is looked upon as an obsolete and discredited medium of exchange.

6813. You would then have the law saying one thing, and the habits and customs of the people another?—If it is conceivable such a law could be passed.

6814. But by such a law people would be entitled to pay debts in silver?—It seems to me that the only effect of such a law would be to enable persons to discharge their debts in a depreciated standard.

6815. (*The Chairman.*) But would not that practice of contracting out of such a law apply in the main to the wholesale and large transactions which are now not settled by any metal passing at all, but by a system of set-off?—Undoubtedly they would. They must apply to large transactions rather than to small.

6816. But then in those cases, inasmuch as no actual metal would pass, might not silver be set off against silver, as well as gold against gold, by a clearing system?—I do not believe that it would be possible to establish a ratio between silver and gold. You might establish it by law, but there would be an agio upon gold, and the effect would be to drive gold out of circulation.

6817. But as regards the transactions here. Do you think there would be an agio upon gold where people did not want the metal in payment and did not get it, but the whole thing is settled by bankers through the clearing houses. In that case, would there be any agio upon gold?—One of the reasons why I think it desirable that there should be no change is, that no one can tell what the change would be. I believe in the inherited preference for gold. I know the feeling of the class to which I belong, and I know that any change is diametrically opposed to our feelings, and that whatever change is made, to whatever extent we can, we will be clear of it. If we lend a man 1,000*l.*, we will say to him, "understand we are not to be paid back in this new stuff; we must have gold."

6818. (*Sir W. H. Houldsworth.*) Do you think that that contract could be legally upheld, because if the law were passed, and a debtor tendered silver, it would have to be accepted; although he had made a contract, supposing he repudiated it and presented the money in silver, would that contract be upheld?—As an answer to this question I would refer to the history of the usury laws of this country, which forbade the lending of money at a rate higher than five per cent. It is notorious that money was lent at six, seven, and eight per cent. in spite of these laws.

6819. But is that quite the same thing, because although the contract had been made, if the debtor felt it to be his interest, which it would be, to pay in the cheaper metal, and presented it to the creditor, it could not be refused under the law?—No; but a great number of the transactions in London are carried on upon an honourable understanding. Many of the transactions on the Stock Exchange could not be enforced by law, and a man might repudiate them. Such conduct as you suggest would not interfere with dealings to any great extent. If a man did that to you, you simply would not deal with him again. A great deal of business is conducted by understanding—not by law.

6820. I think it could only be in large transactions and between individuals who might be willing to perform an honourable understanding; would not that be a very small per-centage of the whole transactions of the country, including retail and payment of wages, where you could scarcely imagine contracts being made?—The large monetary transactions form a very large proportion of the whole transactions of the London clearing house; the large sums are the important sums. Taking the cheques which Messrs. Glyn pay through the clearing house on an average day, it is found that cheques of 1,000*l.* and upwards constitute one-thirteenth of the total number of cheques dealt with and three-fourths of the aggregate amount.

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6821. But are they a large proportion of the whole transactions of the country, including the payment of wages and all retail transactions?—That I am not able to judge. If you take the clearing house returns of any day the sums would be found to be very large.

6822. You would admit that this contracting out of the law could not be universal?—I beg to say it is only the expression of my opinion. It is not susceptible of proof, but I do believe this that so inherent is the preference for gold over silver, that it would be impossible by law now to make the great financial establishments of this country accept silver at the rates of 15 to 1 or 20 to 1 as equal to gold.

6823. Did that take place in France when the bi-metallic law was in operation; are you aware whether the people there contracted out of the law?—No, I do not think they did, I do not think the French had any preference at that time for gold or silver; I think they were accustomed to silver money and contented with it until they were able after 1850 to replace their silver by gold.

6824. (Mr. Birch.) With regard to contracting out of it, it is a thing that is done every day. You could not prevent people drawing upon you payable in gold. In the trade between the United States and Havana, the Havana houses arrange that they will not take bills on New York except they are drawn payable in gold?—Exactly the same thing would happen here. These large transactions would be made payable in gold. A bill would be drawn payable in gold, and the man who had to accept it and to pay it would not pay in silver if he had contracted to pay in gold.

6825. (Mr. Barbour.) Would it not be dangerous for a bank to hold a quantity of gold if the legal ratio differed very much from the market ratio? Supposing the legal ratio was 15½ to 1 and the market ratio was 20 to 1, would it not be dangerous for a bank to hold a large quantity of gold. I ask the question with reference to what occurred in France in 1860. The Bank of France had a large quantity of silver at that time and a small quantity of gold. There was a premium on the silver. Fears were entertained of a run on the bank to force payment in silver on which there was a premium, and the Bank of France sent a couple of millions of silver over to the Bank of England, and got gold in exchange from England. If a bank were known to hold a large quantity of the more valuable metal might there not be a run on it?—I am not able to follow what would happen if such a thing were done. I think it is a monstrous assumption that we should pass a law departing from our time-honoured practice unless some overwhelming necessity were proved. I am unable to see the evil which it is sought to cure.

6826. (Mr. Fremantle.) You said that if in the future there were found to be a deficiency of gold among civilised nations, some substitute would be found by the commercial world. Would you explain what you think might be the nature of that substitute?—I alluded to the idea which I believe was first promulgated by Professor Jevons. Without saying that such a plan as he suggests is practicable as yet, it occurs to me as not impossible at some future time. But if it were adopted by traders it is probable that no legislative change would be made until its use had been established by custom. I believe that if gold for any reason fails to perform its function as a medium of exchange mankind may be trusted to find a substitute. Gold is the latest phase of development, but it would be rash to predict that no further development can take place. But this is merely a speculative opinion.

6827. (Mr. Barbour.) But you think nothing would induce them to accept silver?—I look upon silver, as far as Europe is concerned, as discredited and obsolete.

6828. (Sir W. H. Houldsworth.) You are aware no doubt that for many years before 1873, the relative price of silver and gold was almost stationary at 15½ to 1?—That is the London price; yes, within reasonable limits.

6829. You are aware also that since 1873 the divergence has been very considerable?—Yes, I am aware of that.

6830. Can you account for these two facts; that during that period when the production of gold and silver varied very considerably at different times; that still that ratio was practically maintained, and that since 1873 it has varied considerably?—Well, I ventured to account for it in an answer to a question put to me by Mr. Barbour, that the production of gold from 1850 to 1875 enormously increased, and was greater, or equal to the whole production of the world, before. That clearly would have produced a most disturbing influence, had it not been for the fact that nations finding a superior medium of exchange, replaced their inferior medium, silver by gold.

6831. (Mr. Barbour.) What were the nations that substituted gold for silver?—The United States and France mainly.

6832. Was not that done under the operation of the bi-metallic system?—Certainly, and the very fact that the silver was displaced would tend to lower the price of silver, because, being repudiated as a medium of exchange, it would become to that extent useless. The demand for it for that purpose would cease, and therefore Mr. Laughlin says, and with perfectly sound reasoning, that a great production of gold, to whatever extent it displaces silver as the medium of exchange, tends to lower the price of silver.

6833. (The Chairman.) The use of silver for coinage purposes by the re-establishment of the bi-metallic ratio would raise the price of silver by creating a greater demand for it?—Clearly; if the Master of the Mint was to go into the market and make a very large purchase of silver for coinage purposes, the price of silver would be raised.

6834. I suppose in your view, even if such a law were not completely obeyed, it would be to some extent obeyed, and to that extent would tend to raise the price of silver?—To whatever extent purchases are made in the silver market, there is of course a tendency to raise the price.

6835. Then the effect would be, as far as the law did operate, to increase the price of silver and diminish the price of gold, and so to bring the ratio back again to some extent nearer what it used to be—to redress the disturbance that has taken place?—Yes; such a law, if it were effective, undoubtedly would have that tendency. My belief is that you cannot by law disturb the natural preference which mankind has for gold, and that every kind of stratagem would be used to secure gold instead of silver; and that if any international or bi-metallic arrangement were made, each nation would seek to increase its store of gold and diminish its store of silver.

6836. But, of course, it is very desirable that the currency should be as stable and uniform as possible?—I think that any change is to be deprecated which would affect its stability and uniformity.

6837. That the standard should not move in relation to commodities, that you might have a difference between the standard and commodities owing to the fall of commodities, but that the value of the standard itself should be as stationary as possible?—But the value can only be expressed in exchange for something.

6838. Still it is assumed is it not, that what is called a fixed standard is the most desirable, a standard that changes as little as possible?—I think the theory is this: you arrive at a certain standard. You will take gold or silver, as the case may be, of a certain weight and fineness. If anybody produces that to the authorities at the Mint they will certify that it is of a certain weight and fineness; but the present system in England is this, that any man bringing gold to be coined may have it coined at a small charge by loss of interest, and thereupon it passes current from hand to hand as certified to be of a certain weight and fineness. It appears to me that that is the sole duty of Government in the matter. I maintain that gold on the whole performs its function as well or better than anything else that has been proposed. That

being so, I am altogether unwilling to depart from it as the standard.

6839. (*Mr. Barbour.*) But if the function of Government ceases with the coining of gold why should Government have forbidden the coinage of silver?—The Government has undertaken to say what the legal money shall be, and having once decided upon it, it keeps to it. The Government in 1816 said, “in future all payment shall be made in this country in gold. For convenience sake we will coin a certain amount of debased silver for small transactions, but that shall not be accepted in payment above a limited sum.”

6840. If it was right for a Government to come to a decision in 1816 as to what the standard should be, would it not be equally right for a Government to change that decision if sufficient cause were shown?—I maintain that all that the Government of the day did, in 1816, was to register and consecrate the practice of the people; and when Governments go beyond that they will fail utterly.

6841. But if they happen to be equal in value would there be any difficulty in inducing people to believe it?—But I deny it; no law in the world can make me believe that a ruby is equal to a diamond, or that an amethyst is as good as a pearl.

6842. If in the market one pound of gold was worth 20 pounds of silver, would you not believe it?—I deny the possibility of fixing the relation by law. I should wish to keep the gold for myself and let you have the silver.

6843. (*Sir John Lubbock.*) You stated that it is the financial rather than the commercial prosperity of this country which is promoted by the present system of currency, but I gather from other portions of your evidence that you would also consider that manufacturing and other industrial undertakings are benefited by the confidence felt that there would be no after tampering with our monetary standard?—Certainly, I think the whole fabric rests upon a common foundation, and the direct effect would be upon financial interests, but the indirect effect would be upon the whole commerce and industry of the country.

6844. Might I ask you as a London banker whether you have had any evidence that our trade with the East has been materially interfered with by the fluctuations in exchange?—I believe it has shown a steady increase ever since 1873, that is since the fall in the price of silver.

6845. Then, although there may have been moments in which the trade has been checked by fluctuations in exchange, you do not think the trade has permanently suffered from that cause?—Certainly not.

6846. Mr. Childers has expressed an opinion that the fall in prices has been very much due to the long continuance of peace which has led to a great increase in the production. Do you concur in that view, and, if so, to what extent?—Well, if I were asked for the greatest reason of all, I should attribute it to the telegraph, which I think has equalized prices in the most remarkable way, and has no doubt tended to lower them. Business is conducted now in a totally different manner from what it was before the invention of the telegraph. The London price of commodities is known in every market in the world, and there is a general tendency I think to equality of prices and consequently to lowering of prices. Then the facilities of communication have immensely increased; owing to the great development of shipping, freights have fallen to a point which was never known before. To what extent peace has had its effect on the fall of prices I cannot say; but certainly war has an opposite effect, because it tends to the waste and consumption of commodities.

6847. Now, with reference to the production of Indian wheat, in relation to the production of wheat in this country; you admitted, I think, that while the exchange was falling that had the effect of giving the producer of the Indian wheat an advantage over the English producer. But assuming that silver remains at its present value, and that there is no

further fall in the value of silver, do you then consider the fact that there has been a fall, gives the producer of Indian wheat any advantage over the English producer?—I think that the fall in silver must have given the Indian wheat grower a considerable stimulus, that whereas his transactions were not profitable when the rupee was worth 2s., now that he can sell his wheat in Calcutta for more rupees in exchange for his draft on London, that that must stimulate the production of wheat.

6848. Suppose, for the sake of argument, he was to send over his wheat to the London market, would the existence of a low but not a falling price of silver give the producer of Indian wheat any advantage over the English producer?—A fall in silver would not affect him. It would depend on what he took in exchange. If he sends his wheat to London, the question is what he wants in return. He wants something in return. If he is ready to accept payment in silver, he gets a larger quantity of silver.

6849. (*The Chairman.*) When the Indian producer has lowered his gold price in consequence of being able to get as many rupees as he did before, and has sold on that assumption, that has brought down the price of Indian wheat. When that point has been arrived at the stimulus ceases as regards the Indian producer, because he is no better off than he was before?—If the price of English wheat is maintained he would undoubtedly have been better off, because he would have been willing to accept in exchange for his wheat more rupees, and he would get more, and apparently the fall in exchange and the fall in prices are simultaneous as far as we can judge. If you could imagine exchange to fall and prices not to fall, the Indian exporter would have benefited, because he would get a higher price for his wheat, and with that higher price he could get more rupees, and those rupees, as is contended, have not lost their purchasing power, but buy the same amount of commodities, so I believe that a fall in silver has stimulated Indian exports.

6850. (*Sir John Lubbock.*) When you say that the rupee has not lost its purchasing power, you mean the relative value of the silver, *i.e.*, of the rupee in India, has not fallen, while in this country, we having a gold standard, there has been a great fall both in silver and in wheat. If the wheat and the silver have both fallen 25 per cent. in this country, then the price of silver measured in wheat has suffered no diminution in this country any more than it has in India?—If the price of commodities fall at the same time with the exchange, as they appear to do, then the Indian producer does not benefit or lose, no doubt; but if you could arrive at this, that the price of wheat was maintained while exchange fell, then ultimately he would receive more rupees and he would be in a better position than his competitor.

6851. No doubt about it. But when the process had ended, when the silver had fallen in consequence, and the exchange had fallen, supposing the price of silver to remain stationary, the question is whether you consider the low price of the silver gives the Indian producer an advantage over the English producer, and I gather that under those circumstances you do not think it would be so?—No.

6852. So that the advantage is a temporary advantage, and would then have come to an end?—It is an advantage as long as the exchange is falling.

6853. (*The Chairman.*) Though it is an advantage to the Indian producer, the suggested disadvantage to the English producer remains, namely, that the prices have been brought down?—Precisely; prices have been brought down.

6854. (*Sir T. Farrer.*) Unless the illustration is that gold equally will buy more of wheat in England and other things than it did before. In that case there will be no advantage or disadvantage to either producer?—I think the producer in England is disadvantaged by competition, if he finds a number of other persons who can sell the same article that he sells at a lower price.

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6855. The greater facilities of telegraphing, the development of shipping, &c., have so far encouraged the Indian producer; but that is a different question from the one whether he is encouraged by the diminution in the value of silver. The two questions are quite distinct, and I now gather that while the exchange was falling the Indian producer had the advantage, and that the English producer is to a certain extent damaged by the fact of the introduction of the telegraph and the increased facilities of communication, but when the value of silver is brought to an equilibrium satisfactorily, the increase in the value of silver does not give the Indian producer any advantage over the English producer?—Yes.

6856. (*Mr. Chaplin.*) If you say that the silver having ceased to fall, the disadvantage to the English producer disappears, I must ask you some more questions to clear up the point?—When the price of wheat has fallen to the same point as the price of silver, then I do not say that there is any further advantage.

6857. (*The Chairman.*) Supposing that the fall in silver has ceased, but that owing to that changed relation of silver to gold the Indian producer can sell at a lower price than he could before with the same advantage to himself, does not that still give him an advantage in competition, supposing the position of the English producer remains the same. I mean that although he may have brought down his price to a point which will afford him no stimulus that he had not before, because he gets only exactly what he did before, yet is not the fact that he can, with as much profit to himself, sell at a lower price, which the English producer cannot do, a certain advantage still remaining to him?—Well, I think it acts in this way: A man in Calcutta has a certain number of quarters of wheat to sell. If the exchange is 1s. 5d. that gives him a certain number of rupees, if the exchange is 1s. 4½d. that gives him more rupees. He says "That will do for me, I will now sell, I will get more rupees." I think in that way a change in silver does stimulate exports. It makes an export transaction profitable which was previously unprofitable.

6858. (*Sir John Lubbock.*) That again is a question of falling exchange, but supposing for the sake of argument that silver was worth no more than copper, why should that give the Indian producer an advantage over the Lincolnshire producer?—He will get more money, he will get more rupees, but he cannot eat rupees. When he came to exchange them for anything else, he would have to give so many more rupees. The contention is that his fixed charges, rent, living, taxes have not risen, and that if he gets a larger number of rupees he is a richer man in these respects.

6859. As regards the fixed charges in rupees, if he has to pay a fixed number of rupees for rent, and wages do not alter, so far he has an advantage, but not in any other respect?—When he sold his commodities he would receive more rupees.

6860. But when he came to exchange them for clothes or any other requisite, if silver had fallen, he would have to give so much more for his clothes. But it is contended that the price of commodities has not risen in India. That is to say, the fall in commodities has been equal to the fall in silver, therefore that the relation between commodities and silver remained the same; and so in this country, if you estimate the price in silver, you probably would not find they had fallen, because the fall in silver has been approximately the same as the fall in commodities?—But I imagine, if you take an exporter of wheat at Chicago and another at Calcutta, if the latter is willing to receive silver or rupees, and the Chicago man wants value in gold, the Calcutta man has an advantage, as he is willing to receive in exchange what is no use to the other man.

6861. (*Sir T. Farrer.*) In that case there would be a large export of silver to India?—There would be, and that is partly arrested by the Council Bills.

6862. Supposing that we depreciated our sovereign

coinage by issuing an extra issue of paper, or by putting more alloy into our sovereign, do you think that would stimulate our exports?—I do not believe that it would stimulate our exports, unless we got more in the foreign than in the home market.

6863. (*The Chairman.*) Supposing the fall of silver is at an end, the result has been that an Indian producer can get the same number of rupees, with the same purchasing power, that he previously could by selling his wheat at 30s. instead of 40s., so that the fall in the price from 40s. to 30s. leaves him just as he was before. But the English producer, who has also had to reduce his price from 40s. to 30s., is so much worse off, by only getting 30s. instead of the 40s. that he got before. Then does there not still remain an advantage to the Indian producer in the competition between him and the English producer, namely, that the person who can sell at the lowest price with the same profit to himself, though he may be in the same position as he was before, has an advantage in competing with the person to whom any reduction in price becomes so much more loss?—Yes, I think he has an advantage; I think the Indian producer benefits, because he is ready to take in exchange a commodity which the English producer is not willing to take in exchange.

6864. (*Mr. Barbour.*) Do you think he benefits permanently?—It occurs to me that he does.

6865. (*Sir John Lubbock.*) The assumption put to you by the Chairman is this,—there has been, we will suppose, a fall of 10 per cent. in all commodities, including silver. Is it not true that though the English producer would get nominally 10 per cent. less in money, yet when he came to exchange his money for articles in England he would get 10 per cent. more for it, whereas when the Indian producer came to exchange his money for commodities in India he would only get the same for it. Therefore, though it is quite true that the English producer would lose nominally 10 per cent. in the price, what he would get for his money would be 10 per cent. more?—That would depend upon the conditions under which the thing can be produced. I was thinking of rent, of fixed charges, because the great number of the charges which the producer would have to pay are fixed, are they not?

6866. (*The Chairman.*) Unless rent, taxes, wages, and the cost of production come down, say 25 per cent., the Indian producer would have an advantage?—Yes.

6867. (*Sir John Lubbock.*) Is it not the case then that the real advantage to the Indian producer is, in the first place, the facility of communication with England; and, in the second place, that if he has to pay a fixed amount for the land, and a fixed sum in wages, then as the rupee is worth less, although he has to pay nominally the same he is really paying less for those fixed charges, and, therefore, can afford to sell his goods at a lower price in this market. That is what I understand to be your opinion?—The advantage which the Indian producer has over the English or American producer is that he is willing to receive, in exchange for his production, rupees which no English nor American producer will accept. As those rupees are worth as much to him as they were before he has an advantage. I should say the lowering of the price of wheat is due in some measure to the power of the Indian producer to ship wheat to this country.

6868. When you say they are worth as much, you mean that he can buy as much for his rupees as he could have done before?—I believe he can.

6869. There has been a fall of 20 per cent. in the rupees, therefore you assume that there has been a fall of 20 per cent. in other articles?—Yes. I assume that rupees in India will exchange for as many commodities as before.

6870. In England, on the contrary, the producer has to take a price 20 per cent. less, but then, on your assumption, prices are 20 per cent. less, or in other words, his money is worth 20 per cent. more?—I believe most prices have fallen in this country.

6871. Then, although he gets a smaller price, the price which he does get will enable him to pay 20 per cent. more, and, therefore, he gets practically the same in England as he did in India?—Well, you would have to go into the whole question of what is the cost of producing wheat in this country, what his fixed charges are, what he can afford to spend. If he gets 30s. a quarter a great part of it goes to pay for labour, rent, rates, and taxes.

6872. Do you consider that the advantage depends on the question of fixed charges, or has he any other advantage?—I consider this, that the producer in India is willing to receive in exchange for his wheat a commodity which the other producers will not, and of which the others can make no use. That commodity to the Indian producer represents his money, which he can turn into anything that he requires, and therefore I believe that the depreciation of silver as it relates to gold has acted as a stimulus to the Indian producer, just as depreciated money would do, as long as it maintained its purchasing power in the home market.

6873. (*The Chairman.*) Supposing, taking the illustration that has been put, in the case of India, the producer receives, getting a lower gold price, the same number of rupees as before, and that he has to pay taxes and wages in these depreciated rupees, then while I suppose them to be nominally the same amount they are actually 25 per cent. less. That is what I understand Sir John Lubbock put. But supposing the price of commodities in England has fallen to the same extent, yet if the producer here taking 25 per cent. less has to pay the same amount of rent, wages, and taxes, he is really paying 25 per cent. more in rent and in wages and in taxes, and those who get the advantage of that 25 per cent. are the people who receive the wages and the rent, and the taxes, and the position of the producer here is worse?—Yes.

6874. (*Sir John Lubbock.*) The position I put is that really the fixed charges and payments of the Indian grower are less, and therefore he can afford to sell his article at a lower price. It is not that the silver has fallen in itself, but it is that his fixed charges being in silver, and silver having fallen, enables him to sell the article at a lower price. What I understand you to mean is this: that the fixed charges of the Indian producer, being fixed in silver, have fallen, and that consequently he can undersell an English producer?—The fact may be granted that the Indian producer can at the present moment undersell the English producer.

6875. (*Mr. Chaplin.*) With the present rate of exchange?—With the present rate of exchange; he could not before, or not to the same extent.

6876. (*Sir T. Farrer.*) Would the establishment of the bi-metallic ratio permanently prevent the Indian producer from competing with the English producer?—I think it would act in the direction of lessening his power of competing. There is a great controversy about that; it was laid down by Mr. Bagehot, and his reasoning appears to me to be sound.

6877. Mr. Bagehot's notion appears to be this, that the silver became less valuable here, but that it was a thing which the Indian would still receive, that consequently the silver would go to India, the wheat or the jute or anything else would come to England, that prices in India would be adjusted in consequence, and that, after a certain time, all things would be as before?—He did predict that; that was his idea. But his predictions have not all been fulfilled. No doubt Council Bills compete with silver as a mode of remittance, but silver also goes, and if a merchant finds that it is more profitable to buy silver in London and send it to India, than it is to buy Council Bills he will do so. If there were no indebtedness of India to England, no charges to pay in London, silver would go apparently to the amount of the whole of Council Bills, if other commodities did not go.

6878. (*Mr. Chaplin.*) When you speak of the stimulus which is afforded to wheat growing in India,

under the present system, would not that stimulus be to the extent that the English grower loses, and the Indian grower, owing to the rate of exchange, gains by getting 30s. for his wheat in England instead of 40s.?—Do you mean that he gets the whole benefit of the difference between 30s. and 40s.?

6879. Whatever the stimulus is, it is a stimulus to the extent of what one man loses and the other gains?—My view is this, that if there were 100 quarters of wheat for sale in Calcutta and 100 quarters of wheat for sale in London, if the man in Calcutta is ready to take silver, and the man in London is not ready to take silver, the man in Calcutta has the advantage, because he can with that commodity go and buy anything he wants, whereas the Englishman cannot use that commodity as money.

6880. What I want to arrive at is this. Is it not a fact that at this moment he is able with the 1*l.* 10s. that he gets for his wheat in London to buy more rupees than he got for 2*l.* before?—It is about the difference between 2s. and 1s. 5*d.*

6881. Whatever the difference is that would be his gain?—That would be his gain if prices had remained the same, but prices have fallen.

6882. That would be his gain, the difference as between the price at 40s. and the price he is getting now at 1*l.* 10s. There is no question at all that if the Indian producer would have gained because he would have received perhaps 40s. converted into rupees, he would have got a very largely increased amount of rupees?—He would have benefited to the extent that the slightest fall in exchange makes a transaction profitable which was not profitable before. It is a matter of experience that bills in Calcutta come forward when there is a fall in exchange. If you meet with a producer of wheat in India he is ready to accept silver, but a producer of wheat in England will not accept silver. They each have what they prefer. The Indian producer will accept silver because that silver has a value to him, which it has not to you.

6883. (*Mr. Barbour.*) But practically the wheat that is exported is paid for by commodities and not by silver?—Quite so, but the producer in India sells his wheat for rupees, the banker gives him rupees for it.

6884. (*Sir L. Mallet.*) You are of opinion that the low rate of interest now obtainable on money is inconsistent with the alleged scarcity of gold?—I am of opinion that the scarcity of gold, if there were such a thing must show itself in relation to the rate of interest.

6885. Do you then consider that there is any necessary connexion between the rate of interest on money, and the relation of money to prices. Is there not a radical distinction between the exchange value of money estimated in money, that is, the rate of interest on money, and the exchange value of money estimated in goods?—Well, I should prefer to say, if I am asked if gold is scarce, if it has appreciated I fail to see any evidence that it has appreciated. The mere fact that there is a fall in prices does not show it, I think.

6886. Do you think that the low rate of interest proves that it is not scarce?—I can imagine no other way in which it would show itself. If in all the banks and centres of the world the balance of gold tends to increase, I cannot see how it can be said to be scarce.

6887. But do not the rate of interest on loans of money, and the power of money to purchase goods, tend to a great extent to vary in opposite directions. For instance, an active demand for discounts on bills or advances from bankers tends, does it not, to raise the value of the use of money?—An active demand tends to raise the value of the use of money.

6888. While, so far as such money is wanted to purchase goods, it will cause a rise in the price of goods and a fall in the purchasing power of money. The more money is wanted to buy goods, the higher prices will be; that is to say, the value of money will

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fall, which is an opposite effect to that which is produced to the value for the use of money. The two things appear to me to vary in opposite directions, that is, the rate of interest falls when prices are high, and *vice versa*?—No doubt prices are acted upon by the quantity of money, but I do not think by gold only, but by all the instruments of credit. If there is any great abundance, prices have a tendency to rise, but, after all, gold forms now a very subsidiary part of the whole, and I believe it is impossible that there can be any scarcity of gold, because there are so many substitutes used for it. As a matter of fact there is no scarcity. Gold is as plentiful as it ever was. I cannot see the connexion between the undoubted fall in prices and any scarcity of gold.

6889. Are not higher profits likely to be attended by a high rate of interest, when profits are high, traders being ready to pay a high interest on loans?—Undoubtedly they are, and when traders compete for them.

6890. When the difference between interest and profit is small, will not capitalists rather lend their money on interest than embark on commercial and industrial enterprises?—Certainly the result of experience is that when commercial profits are very low there is a tendency to invest money in permanent securities.

6891. Well then, how could an appreciation or depreciation of the currency affect the rate of interest on money, the money and the interest on it being equally the subject of such appreciation or depreciation. Four per cent. is always four per cent., and if 100*l.* is worth more than it was before, 4*l.* will also be worth, equally, so much more than it was before?—I say they are arguing without evidence, those who say that there has been a scarcity of gold. I fail to perceive it; I see no signs of it.

6892. You think that the low rate of interest is a sign that there is no appreciation?—I think that it is a sign. I think if there had been any scarcity of gold, stocks in the banks would have diminished, and the price of money must have risen. It seems to me so.

6893. (Mr. Barbour.) Are you aware that Mill holds that there is no necessary connexion between the quantity or value of money in circulation and the rate of interest. He says: "From the preceding considerations it would be seen, even if it were not otherwise evident, how great an error it is to imagine that the rate of interest bears any necessary relation to the quantity or value of the money in circulation. An increase of the currency has in itself no effect, and is incapable of having any effect on the rate of interest"?—Yes, that I have no doubt is true; but I have simply argued in this way: I disbelieve in a scarcity of gold, and that prices have fallen because gold is scarce, and I then say that if there had been any appreciation of gold, which I disbelieve, I think it must have manifested itself in some palpable form; in some way we must have been aware of the scarcity of gold.

6894. By the fall of prices?—That is only another name for the same thing. A scarcity of gold should mean this, that other nations that formerly did not use gold do so now, and that there is not enough to perform the functions; that is what I deny.

6895. The contention is not that there is not enough to perform the functions, but that there is not enough to perform the functions at the old scale of prices. I think that is the contention?—That I cannot believe.

6896. You are aware that in recent years in England there has been on the balance, according to the trade figures, an export of gold?—A small export.

6897. And we know that there is every year a consumption of gold in the arts, so that, on the whole, the quantity of gold in England is now actually less in all probability than it was some years ago?—I think that is very likely.

6898. Then your contention would be, not that there is not less gold here, but that any reduction in

gold has been compensated by banking expedients?—If there were any scarcity of gold I maintain that it would be met by substitutes immediately, and that the effect on prices is not that of gold only, but of credit notes, cheques, bills, &c.

6899. But would there not be a limit to the extent to which you could use substitutes for gold?—Well, that limit has not been reached yet. I think there never was a time when there were so many. In my early days the stock of gold was a very serious question. That has ceased to trouble us altogether. I do not think anybody ever entertains a doubt that he can get gold for his note, so gold does not play the important part that it formerly did. The main object of the legislation of 1844 was to establish beyond all doubt that the bank-note should always represent its value in gold. That is a question that has ceased to trouble us, and gold now performs a minor part in the circulation of the country.

6900. (The Chairman.) Has the increased purchasing power of gold anything to do with them; if gold increased in purchasing power the note would increase in purchasing power too?—Well, if gold were the only thing that affected prices it would be so, but prices are affected by many other causes.

6901. By all that a man possesses which he can give in exchange for commodities, and which is not represented by the gold which he has, but by all the credit which he can get or the property that he can turn into gold?—By the purchasing power that he has, and that purchasing power in its relation to gold has enormously increased. Gold performs a much less important function than it did. The use of gold has decreased; other things have increased; credits, cheques, drafts, all those subsidiary portions of the currency have enormously increased.

6902. You expressed the opinion that if the bi-metallic ratio were created, and silver made legal tender at that ratio, contracts would be entered into in relation to gold, owing to tradition and habit, would not that be with reference to what I may call international transactions only. Would there be any reason for such bargains being made in relation to internal transactions in commodities?—Well, the way that it strikes me that it would take effect would be in loans. Bankers called upon to lend to a corporation or a public body 100,000*l.* for a term of five years would say, "Now I will lend you this money in gold." That is to say, it occurs to me that in the larger transactions people have got such a preference for gold that no legislation would persuade them that it was not more valuable. They would guard themselves against being paid in silver. If the state says debts contracted in gold may be paid in silver, why not in shells, stones, anything.

6903. In regard to internal transactions which are settled through the clearing house, and which do not require any transfer of any metal from one person to another, it would not matter to the person entering into the transactions how they were carried out, whether by silver or whether in point of fact they would not be carried out by either. They would be carried out by a transfer at the Bank of England from one banker to another of the balance of the transactions; but I do not see regarding the great bulk of ordinary commercial transactions, that there should be any tendency to contract for gold or for silver?—The particular form it would take I am unable to predict, but the preference for gold over silver has nothing to do with law, and no law which can be passed would ever make bankers willing to be paid in silver instead of gold. We would take some precautions to show that we would not be bound by this. I have ground for assuming that, because it has actually been done.

6904. As far as all the money you owed to your customers, for example, if they were bound to take silver from you, it would not matter whether you took silver or gold in regard to what you had to give them, so that to this extent it would be partly operative?—My contention is that such legislation would fail, because large dealers in money would contract them-

selves out of it. As an illustration of the manner in which a community will provide itself with currency I should like to call the attention of the Commission to the experience of the United States. After 1860, when the fractional token coins began to disappear from circulation, the Government, in order to retain these coins, passed a law prohibiting the issue of paper money of less denomination than one dollar. Thereupon tickets, tokens, and other instruments of exchange were immediately issued by companies and individuals and acted as substitutes for the displaced silver token coins.

6905. (*Mr. Barbour.*) Does not that also tell in the other direction? When, owing to the depreciation of the currency, it became profitable to export the fractional coin it was exported?—Well, notwithstanding the law made to prevent it, the more valuable

money was exported, and the less valuable remained. What I wanted to argue was this, that if you attempt by law to deprive people of the money required for their transactions they will invent some substitute for themselves.

6906. The United States Government passed a law with a view to keep fractional money in the country, and it failed because the fractional money had become of more value as metal than it was as money?—Yes.

6907. The fractional coin ceased to circulate as soon as its intrinsic value exceeded its legal value, and the United States Government not having provided any other fractional money the people made fractional money for themselves?—Yes, they made a money which represented nothing but credit, in the shape of tokens and tickets.

The witness withdrew.

Adjourned till Monday.

Twenty-eighth Day.

Monday, 11th July 1887.

PRESENT :

THE RIGHT HON. LORD HERSCHELL, the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.
MR. J. W. BIRCH.
SIR T. H. FARRER, Bart.
MR. C. W. FREMANTLE, C.B.

SIR W. H. HOULDSWORTH, Bart., M.P.
SIR JOHN LUBBOCK, Bart., M.P.
SIR LOUIS MALLET, C.B.

MR. GEO. H. MURRAY, *Secretary.*

Mr. H. L. RAPHAEL called and examined.

6908. (*The Chairman.*) You have carried on business for many years as a bullion banker in the City of London, and have been concerned in considerable financial operations there?—Yes.

6909. Do you think that an international agreement could be made for the free coinage of gold and silver as legal tender money at a fixed ratio?—An international agreement could be made if the principal nations, namely, the United States, France, Germany, and England, found it to their interest to do so. The United States as a large silver producer, and France with a large silver currency would favour such an agreement, but on the other side there would be Germany and England who have no such reasons for favouring it. I will explain later the reasons why I think that Germany is likely to be opposed to it, and as regards England, many of my replies will explain that the interests of England are opposed to it. But, speaking generally, I think that such an arrangement might be made if the four nations found it to their interest to do so.

6910. Then, the next question I would ask you is whether, in your opinion, it is in the power of governments to maintain such a ratio if agreed upon?—If the four principal governments were to agree to an arrangement, it is to be presumed they would have the power of maintaining it; but I, for my part, am afraid that circumstances would, before long, occur which would cause some of the governments, whilst carrying out the letter of their agreement, to depart from it in spirit. As an ammunition of war, gold will always be considered more important than silver. It is easier to transport, and besides, gold possesses a glamour which silver has not, in fact people think more of gold than of silver, and most likely that will be the case during the present genera-

tion, whilst that effect is on our minds. With the jealousy existing between Germany and France, if gold were exported largely from one country to the other, a feeling of mistrust would be certain to arise, and suspicions would be aroused that the gold was being acquired in a surreptitious manner, namely, by purchase at a premium. In case of war, or even of fear of war, I have no doubt that the military powers, France and Germany, would seek to strengthen themselves by the acquisition of gold by purchase, if it could not be obtained otherwise. Then again, is the arrangement to be made for a short period as a trial, or is it to be made perpetual? If for a short period, I have not the slightest doubt that immediately there would be developed a desire on the part of each nation to increase its gold reserve, and not to part with its stock of gold, in order to be prepared for the termination of the agreement, and a possible return to a monometallic standard.

6911. Do you consider bimetallism possible on any other ratio than $15\frac{1}{2}$ to 1?—I consider the only possible bimetallic ratio to be that of $15\frac{1}{2}$ to 1. To avoid the sudden alteration of value, bimetallicists have talked of a ratio of 20 to 1, which would be near the present ratio, which, as you are aware, is 21 to 1. If this ratio of 20 to 1 were adopted, instead of two metallic currencies there would be three. There would be gold, the old silver coinage of $15\frac{1}{2}$ to 1, and the new of 20 to 1. It is not to be expected that the two coins would be looked upon as identical, when the one contains 30 or 35 per cent. more silver than the other. As soon as a balance of trade necessitated an export, the only silver that could be exported would be the new coinage, and in consequence it would be certain to command a premium. In view of this contingency, which arises

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in every country from time to time, there is not the slightest doubt that every bank and every trader would keep in reserve the new coinage, to be prepared to secure that premium, when an export demand occurred. To put it in a more forcible form, if at the time when gold was discovered in Australia and California, it had been proposed to increase the amount of gold in the sovereign—to day it is 5 dwts. $3\frac{1}{4}$ grs.—suppose it had been determined to meet the trouble of superabundance which then occurred in people's minds, as it does to-day about silver; suppose it had been determined then to raise the weight of the sovereign to 6 dwts., do you think that the 6 dwts. sovereigns, the heavier ones, would have circulated, side by side with the old sovereigns of 5 dwts. $3\frac{1}{4}$ grs.? It would have been evident that at the first export demand, and an export demand does occur in this country every three, six, or nine months, the heavy sovereigns would have been the only sovereigns exportable, and naturally, the Bank of England, and every trader would have kept them in reserve until an export demand arose, when they would have commanded a premium. If it were determined to change all the coined silver in existence to the ratio of 20 to 1, and call in the old coinage, these insurmountable difficulties would arise:—Firstly, the re-coinage of the old coin would take a generation. Of course, it could be decreed that the rupee is henceforth to pass at a reduced value of 30 per cent., or whatever it may be, and instead of being worth 16 annas, it was to pass for 11 annas, or that the 5-franc piece, instead of passing for 5 francs, should pass for 3 francs 50 cents, but then who is to bear the loss of the 30 per cent., the Government or the people? If the Government, in the case of India, it would cost probably a sum of 80,000,000*l.* or 100,000,000*l.* sterling. If it were determined that the loss should fall upon the people, well, I should say then, I give it as an opinion, that it would cost England 100,000,000*l.* sterling to quell the discontent and prevent the loss of India.

6912. (*Mr. Barbour.*) Do you propose to re-coin the rupee in India, in case there is a bimetallic agreement with the ratio of 1 to 20?—I say it would either have to be re-coined or you would have to decree that the rupee is henceforth to pass at a reduced value of 30 per cent., and instead of being worth 16 annas, is to pass for 11 annas. I say that the two coins could not remain in circulation together; the one on the basis of $15\frac{1}{2}$ to 1, and the other on the basis of 20 to 1.

6913. But there are only silver coins in India: why should they not remain as they are?—But you are going to introduce a coin of the ratio of 20 to 1, which is $4\frac{1}{2}$ upon $15\frac{1}{2}$, or 30 per cent. more. Bimetallicists propose to adopt a ratio of 20 to 1. How are you to deal with the fact that you have two coins, one coin which has $15\frac{1}{2}$ of silver in it, and another which has 20 of silver in it. It is not possible that the two could remain in currency at the same time.

6914. (*The Chairman.*) You are assuming the bimetallic arrangement to extend to India. I think Mr. Barbour was suggesting that you might have your bimetallic arrangement and leave India out altogether?—My argument applies to France just as much as to India. I have not the slightest doubt in my own mind that it would not be expedient to make a bimetallic arrangement and leave India out.

6915. (*Mr. Barbour.*) But if you did, all you would require to do would be to coin a new gold coin worth 20 rupees. There are no gold coins in India at the present time?—They have mohurs.

6916. But they are not coined as legal tender?—No; but the question is about silver. When I talk of England coming into such an arrangement, I include India as being with England, and I say that if you adopt a standard of 20 to 1, you will find yourself in this difficulty, that you endeavour to keep two silver standards in circulation at the same time, one with $15\frac{1}{2}$ of silver and the other 20. Well, I maintain that the 20 silver would not remain in circulation.

It would be reserved for export when a balance of trade occurred.

6917. I was speaking of India; and I cannot see how your argument applies to India?—I thought that if England came in you would not exclude India from the advantages, if advantages there are. Well then, again, in regard to France. They would have to face the same difficulties. There the loss would have to be borne by the Government or by the nation. The silver held by the bank of France to-day amounts to 44,000,000*l.* sterling. If there is to be a loss upon those 44,000,000*l.* of 30 or 35 per cent., why it will be twice the capital of the Bank of France, and therefore, I contend that the only coinage which is possible, if it were determined to adopt bimetallicism, would be on the basis of $15\frac{1}{2}$ to 1, the same as existed before the demonitization of silver by Germany.

6918. (*The Chairman.*) What would be the effect of our mint being opened to the free coinage of silver at the ratio of, say, $15\frac{1}{2}$ to 1 of gold, supposing an international agreement to have been made to that effect?—I propose to answer your question in two parts:—Firstly, as to the effect bimetallicism will have on the precious metals, and secondly, as to its effect upon trade and the general prosperity of England. Now as regards the precious metals. I take for argument's sake the annual production of silver at the present price of silver to be 24,000,000*l.* sterling, and of gold 20,000,000*l.* sterling. I do not put these figures forward as authentic, although I think they are not far from the mark, but I repeat I only use them as a basis of argument. Now if the value of silver be raised by international agreement 30 or 35 per cent., it is evident that the respective annual production would be 32,000,000*l.* sterling of silver, and 20,000,000*l.* sterling of gold. If you decree that silver instead of being worth its present market value, 44*d.*, is worth, say, 60*d.*, which is $15\frac{1}{2}$ to 1, you immediately add to the value of the silver which is found the difference between 44 and 60; therefore the proportionate production of gold and silver, which is now as 24 to 20, would be raised to 32 to 20. Then if 32,000,000*l.* sterling be the value of silver produced by the mines, how much more will be produced with the price at 60*d.*, when 16*d.* per ounce extra profit is offered as an inducement to the miners to produce silver? This looks like a rule-of-three sum. Of course it is not to be worked out in that way, but there is no doubt that the extra profit on silver would add enormously to its production. With the silver mines yielding such extraordinarily large profits, would it not have a damaging effect upon gold mines and diminish the annual yield of gold? That might occur in this way:—Mining wages would rise enormously. Silver mines making an extra profit of 16*d.* an ounce could afford to pay much higher wages. The cost of machinery, no doubt, would increase; the necessities of life would also increase in price, and all these taken together might prevent some gold mines from being worked under the new order of things. What I stated before as to the proportion of silver would be a fact, there is no contradicting it, and as for giving an extra profit of 16*d.* per ounce to the silver miner, it is a matter of certainty that the production of silver would largely increase. As regards the gold falling off, it is only a theory that I suggest, which might be established by fact or not I think it would. I think gold mining would fall off, because there would be a greater attraction for silver mining. Now as regards the effect it would have upon trade, I think that the raising of the value of silver 30 per cent., which would be really bringing very much more of the precious metals into circulation, would, no doubt, produce an inflation in values. This inflation would only be temporary in regard to its general character, like all other inflations which are overdone and which come to an end. We witnessed a great inflation caused by the American War, when America suspended specie payments, and her specie was released, and found its way into Europe. We also witnessed another inflation after

the large indemnity which was paid by France to Germany. In Germany things rose to a frightful state, but it was only a question of a year or two before the collapse occurred. However, I have no doubt that there would be an inflation, but it would not last long. This accounts for the various Chambers of Commerce in England favouring bimetallism. These bodies are composed of merchants, manufacturers, coal-owners, mill-owners, and people of that sort. They see an immediate profit by its adoption, and although they would be ready to acknowledge that the inflation in the price of manufactures would not be lasting on account of the universal competition there is in the world, yet each one would hope to have secured his harvest before the re-action set in. This would be an immediate advantage for them. If they were asked about the position of the working classes under this inflation, they, no doubt, would reply that higher wages will compensate for increased cost of living; but we all know that increase of wages has always to be fought for, and in nearly all cases is resisted by employers. Some trades, assisted by their unions, might succeed in enforcing higher wages, but what a small proportion are these to the bread-earning population of England. The following classes have no unions to look after their interests: shopkeepers, clerks, Government employés, sempstresses, &c. Now, as regards the permanent effect that bimetallism would have on the price of food and those food products which we are compelled to purchase from abroad, which, as you know, form a large proportion of our imports. England receives from abroad enormous sums annually for capital invested. A proof of the enormous sum is the difference between the imports and the exports, the imports being nearly twice the amount of the exports. A certain amount may be reckoned for freight and a certain amount for insurance, but still the imports never could reach that total, could not be kept up to that total for so many years, unless the amount of money owing to England was something enormous. Well, a large part of this enormous sum is payable to us in gold, and under our present gold standard we can purchase at the present day silver 30 to 35 per cent. cheaper than we could formerly or than we could if we adopted the bimetallic basis of 15½ to 1, and with that silver, which we buy cheap, we can pay India and China and other silver-currency countries. We buy it at a reduced price, and can pay them with it for our food. Nor are our advantages confined alone to our purchases made from silver currency countries. If wheat from India could not, owing to the cheapness of silver, be imported at the present low price, America, from whom we draw by far the largest part of our supplies, would refuse to sell us at the price existing to-day. She would demand 8s. to 10s. per quarter higher, and would, no doubt, obtain it. Therefore, not only have we this advantage on all the food which we import from India and China, but America, the great purveyor of the world, is obliged to take the lower price. The essence of free trade is that the necessities of life should be obtainable at the lowest possible price, in order that wages should be as low as is compatible with existence. Those gentlemen who demand bimetallism would be quite as consistent if they were to ask the English Government to spend annually 50,000,000*l.* sterling, to raise it by loan, and to spend it on ironclads, fortifications, and all sorts of things. The greater part of the money, or the whole, would be spent in this country; and there is not the slightest doubt that it would give a revival to trade, and stimulate it for the time, and all these gentlemen would derive great advantages; but what would be the position of the lower classes, of the masses? They would have to pay for the whole thing. As a proof to what extent low silver has cheapened food, although our consumption naturally is greater than it was years ago, owing to the increased population, and there being more mouths to feed, yet the payments for food which we have to make abroad are smaller.

6919. (*Mr. Barbour.*) Do you mean our payments

in gold or our payments in commodities?—Our payments in gold for food which we import. I can only reckon gold which is the standard. I cannot tell you how many manufactured shirts you send for a quarter of wheat. I can only reckon it in gold; that is the use of gold, to settle values. We have got out of the age of barter, and are in the age of gold. Statistics would hardly forward us, because I think that every one will allow, that perhaps with the exception of coffee, which owing to a special cause went up last year very considerably, from the fear of a short crop, every other article of food has been steadily and persistently declining; and this decline has been contemporaneous with the decline of silver. The cause of our agricultural distress, I believe, has been rightly ascribed to the competition of large tracts of land in the United States which pay no rent, but there is no doubt that, as regards the agricultural interest, the decline in silver has had a very damaging effect; in fact, it has been the finishing stroke to a long course of suffering, originating in the competition from free land in the United States. I do not question this agricultural distress being a serious matter for England, because in a political point of view it drives our labourers into towns, where they become enervated, and no longer form the backbone of our fighting power. However, it might be wise to take the duty off tea and put it on corn, but we are not here to discuss that matter to-day. I only mention this point to explain what appears to me to be the absurdity, that in order to give relief to agriculture to a certain extent, we should adopt a supposed cure, namely, bimetallism, which would raise the price, not only of wheat, but nearly every article 30 or 35 per cent. But take wheat alone, which we are obliged to import in enormous quantities, you would adopt a ruinous course for the sake of relieving our agricultural population which might be relieved just as easily, say, by taking the duty off tea and putting it on corn. But, however, whether you do that or not, in order to give a certain amount of relief you propose to make the whole of the population pay considerably more for the food that they consume. Now, the wealth of England, other than the accrued wealth, namely, the interest which she draws from her investments abroad, consists, as we all know, in her iron, her coal, and in the manufacture of iron and other metals, and in a great quantity of other manufactures, such as cotton, wool, jute, and the like. If by adopting bimetallism and paying foreign nations dearer for our food, which would be the inevitable result, is there such a certainty that they would buy more of our manufactures? If we paid America 8s. per quarter more for her wheat and corn, is it so certain that she would take more iron from us in return? Her manufactures, as you know, have been so stimulated by protection, which on iron is 50 to 60 per cent., that to-day she can manufacture for her own use a sufficient quantity. But even if she is obliged to import, it does not follow that she will come to England because we pay her more for our food. She would go to Belgium or Germany, if there she can buy cheaper. Now, as regards our other manufactures, would it not be a disadvantage to have dear cotton, dear wool, and dear jute? There is no doubt that things have changed as regards competition. There was a day when the English manufacturer was alone in the field, but to-day other nations have grown up and the English manufacturer has to use his brain, has to content himself with smaller profits than formerly, and has to compete very much more with other nations. Now, if we are to make a stand against that competition, is it not evident that the most favourable circumstances for us are that we have cheap food, which means low wages, and that the raw produce should be obtainable at low prices, which mean increased consumption. Therefore, in answer to this question No. 3, I think that the effect would be a very bad one, as far as England is concerned. As regards India, I shall have occasion afterwards to allude to that in answering one of the other questions

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6920. (*The Chairman.*) To what extent do you consider that the commercial or financial position of this country is due to the single gold standard now in use?—I think that the single gold standard has contributed to the high financial position occupied by this country, not so much on account of its being a gold standard, but because the sovereign has existed for so many years and no alteration has been made. The chief reason for England's pre-eminence in her financial position is the universal feeling that it is the safest country in the world to deposit money, because it is not exposed to internal disturbance and the risk of invasion. I have no doubt in my own mind that if France had a gold standard and England the double standard of France, that England would still maintain her financial supremacy over France.

6921. (*Mr. Birch.*) But do you not consider that the gold standard has been a great advantage to England in this way: whenever a bill was drawn in any part of the world, they knew that it would be paid in gold, whereas if drawn on France, at various times, they have paid in five-franc pieces, and at others in gold. Do you not think that that is an important element?—An idea perhaps, but not the real fact. The real fact of England's supremacy is that she is safe from inland disturbance and risk of invasion, and I have no doubt that the sovereign having existed for so many years, and no alteration having been made, has had a great effect.

6922. (*Sir T. Farrer.*) Then, that being so, it having existed for so many years, what do you think would be the effect upon England's financial position of an alteration made at the present time; do you think it would have any effect for good or for evil?—Not as long as all the others stuck to that agreement, but if there was an idea that one was playing false to the other, then England would be in a very sorry position.

6923. But you do not think that the mere alteration of the gold sovereign into bimetallic money, half gold, half silver standard would affect England's financial supremacy of itself?—No, I think it depends on other circumstances. I know that the German Government changed its currency because it thought that an exclusive gold standard would give it a supremacy in trade, or at any rate would put it on a footing with England. That was the idea in altering the currency. There may be reason in it, but I fail to perceive it. I think that the great inducement for people trading with England is that they know their money is safe there, and that there is no such fear as of the Germans entering France, or the French entering Germany, nor of any revolution.

6924. You do not think that, the facts being as they are, the alteration of the gold standard would at all injure her financial position?—All I can say is that I know that that was the German idea, that they would get advantages. There may be advantages, but I fail to perceive them.

6925. (*Mr. Birch.*) But do you think that with regard to Germany it has had the result that they expected?—Germany has increased her trade to an enormous extent, but then the trade follows the flag, you know. It is her great political ascendancy that has most likely given her this advantage.

6926. (*Mr. Barbour.*) Do you think that the adoption of the gold standard by Germany is the cause that has led to the large increase in German manufactures?—That is naturally due to the protection which has been given to traders, which has stimulated trade to such an enormous extent.

6927. I believe at one time in England we had depreciated paper—in the beginning of this century?—Yes.

6928. That, of course, was an inconvenience, but it did not destroy our commercial supremacy at the time?—No, it did not; but then you must remember that at the time that we had that depreciated paper all the other nations had the same. It was a time of general war, when all were on the same footing. There

was no comparison to be made at that period between paper and gold.

6929. (*Mr. Birch.*) My question was simply with regard to banking, whether there are not a great many more bills drawn now direct upon Germany than formerly were drawn upon England, for German account, more direct business, is there not, a great deal?—Yes.

6930. Do you think that that may in a certain extent be attributable to the better state of the currency of Germany?—I think it is due more, as I said before, to the moral and political effect of her victories.

6931. (*The Chairman.*) To what do you attribute the fall in the value of silver since 1874?—Well, it is a very short history. The fall in silver was originated by the demonetization of that metal by Germany. To guard against the loss of their gold the mints of the Latin Union were closed, so that Germany should not pour its silver, which it wanted to get rid of, into those mints, and exchange it for gold. The Governments of Belgium, France, and Italy closed their mints. There ceased to be an outlet for silver to any country that, hitherto, had coined it on the ratio of 15½ to 1. The quantities produced had then to depend, firstly, on the 24 millions of dollars coined under the Bland Bill in the United States; secondly, on the demand for India and China; thirdly, on the requirements of silver for token money in England and other countries; and, fourthly, on the demand for manufacturing purposes. All these demands combined were insufficient to absorb the whole production. With the exception of the one use in the United States, namely, the coinage, which was for a fixed amount of 2,000,000 dollars a month, all the other demands were of a variable nature, both in regard to time and to amount. Therefore there occurred times in recent years when silver had forcibly to be shipped to India as the only outlet. The position was aggravated by the competition of the Indian Government drawing on India. That depressed silver, and silver, in its turn, depressed the price of the rupee, and hence the fall.

6932. The main element, as I understand, that you give, is that one of the sources of demand was dried up?—Well, it was not a source of demand, you know. As long as the Latin Union was there to coin it at the ratio of 15½ to 1 there was an endless outlet. That endless outlet has ceased to exist.

6933. And the other uses for silver only remained what they had been before?—Except the Bland Bill.

6934. But the Bland Bill was not enough to counteract the effect produced by the others ceasing to coin?—No.

6935. Then do you anticipate a further fall?—That question it is hardly possible to reply to, as it depends on so many issues, all of which are uncertain. Were the Bland Act repealed, which, however, is not expected by the best authorities in America, a further fall would undoubtedly take place, but the future of the price will depend greatly on the production; to judge of the price at which the production will fall off, a long time will be necessary, because a company or a private person possessing a mine would go on working that mine for years before closing it. In fact, if the owner made a loss, he would not shut up the first year, but would go on until his capital was pretty well all exhausted, knowing very well, that if ever things improved, and he had to re-open the mine, it would cost heavily for new machinery and setting the works in motion again.

6936. I understand you to mean that the fall in the value of silver would have to go on a considerable number of years before it diminished production, even though it should ultimately result in diminished production?—Yes. I mean to say, even supposing silver at 44d. an ounce is a price which prevents a good many mines from working with profit, it will take a long time before that is proved. Owners will go on working,

although there is a loss, sooner than close their works and have their machinery become worthless.

6937. What do you think would be the effect in this country and its dependencies of the suspension of the Bland Act?—The repeal of the Bland Act would undoubtedly produce a fall in silver. The amount coined under this Act is so much added to the currency of the United States, as although the silver itself does not go freely into circulation, certificates are issued against the silver deposited in the United States Treasury, and pass as bank notes. But in the present state of affairs in the United States, the fiscal arrangements there are in what may called an impossible state, on account of the rapid redemption of the national debt. The issue of national bank notes, not greenbacks, is based, as you are aware, upon Government bonds deposited with the Treasury. As these bonds are called in, a similar amount of these national bank notes have to be cancelled. Practically therefore the increase in demand for currency on account of the great growth of population and emigration has to be met by the annual finds of gold in the United States and by the silver coined under the Bland Act. You will perceive therefore that, if this coinage, which amounts to 4,800,000*l.* sterling a year, were stopped, there would be a demand for currency which might have to be supplied by an import of gold from Europe, if Congress did not alter *in toto* the currency laws. Assuming that money were plentiful in Europe, the gold shipments would produce no great effect, but if the shipments produced an important increase in the value of money in Europe and in England, they would cease at once. In that case there would be a fall in values in the United States, and prices would adapt themselves to the reduced currency. Therefore the repeal of the Bland Act would at first produce an increase in the value of money, which is the same thing as an increased demand for gold, but this would only be temporary. Of late years we have seen two instances, firstly, when Germany forcibly sold her silver and took large amounts of gold, and when Italy returned to specie payments. These large amounts of gold were abstracted from different parts of the world, and have never left these two countries, yet the effect was only passing; for the moment it produced dear money, but for the last few years we have had cheap money. Towards the month of October, when we have to pay for our raw manufacturing material and supplies of food, we have had a dearness in money which lasted two or three months. The remaining months were characterised by extreme ease in the money market. This has been invariable in later years.

6938. (*Mr. Barbour*) By dear money you mean a high rate of interest?—They are synonymous.

6939. (*The Chairman*.) When you use the word "dear" money in the sentence you have just used, what do you mean?—Dear money and the demand for gold are the same thing. Well, then the repeal of the Bland Bill would have the effect of making money temporarily dearer, as when Italy and Germany took gold, but it would only be temporary. England has so much money abroad that a period of two or three months of dear money is sure to bring some of it back. Sometimes it may require one, two, or three months of dear money, but it is sure to come back. As regards England's dependencies, I think the effect produced in those colonies having a gold currency would be very much the same as in England. If money were temporarily dearer in the mother country it would get temporarily dearer in these colonies; as regards India it would have a contrary effect. The silver no longer absorbed by the United States would have to find its outlet in India, and there would be no other outlet for it. The rupee must depreciate in proportion to the fall in silver. Those who draw their income from India would lose, and the Government loss on exchange, no doubt, would be greater than it is now, but the trade of the country would not suffer, indeed, it might benefit by it. Till now the decline in the value of the rupee has had a marked effect in increas-

ing the trade in India. In every country prices have fallen, but in India they have not, reckoned by her silver standard, as the depreciation of the rupee kept about pace with the fall in produce in gold-currency countries. Now I will explain what I mean in figures. If wheat were 40*s.* per quarter in England, and the exchange 2*s.* (these are only arbitrary figures for the purpose of demonstration), the price in India would be 20 rupees, because 20 rupees at 2*s.* is 40*s.* a quarter. I do not reckon freight and insurance, because I am not reckoning closely. With wheat in England at 32*s.*, which it is to-day, and the rupee at 2*s.*, is it not evident that exporters could pay only 16 rupees per quarter for their wheat in India. Therefore, if the rupee had not depreciated, you must have had a fall from 20 rupees per quarter to 16 for wheat to be exported. The present price of Indian wheat in England is about 32*s.*, and the rupee is, you are aware, 1*s.* 6*d.* This makes wheat in India 21½ rupees per quarter. Now the Indian grower gets as much for his wheat, in fact a rupee more, with wheat in England at 32*s.* per quarter, than he did when the price was 40*s.* If we compare the position of the American with that of the Indian grower; when wheat was 40*s.* per quarter, the American got 10 dollars per quarter—4*s.* is the dollar. With wheat at 32*s.* a quarter he gets only 8 dollars. The American, therefore, gets 20 per cent. less than formerly, and the Indian somewhat more. It may be said that if the fall in silver were beneficial to the Indian grower, on the other hand he would have to pay more for his imports, but that until now has not been the case, because prices of goods have fallen to such an extent in the countries from which he imported them. If the rupee continued to fall, it does not follow that the price of goods imported into India would fall also, but I only mention what has occurred, and wish to demonstrate that till now the Indian nation, the masses, and the producers there, have gained by the fall in silver.

6940. Do you think that any measures could be taken by this country, short of entering into a bi-metallic union, which would give increased stability of value to silver?—I do not see that any measure other than bimetalism can be taken by this country to give increased stability to silver. An important demand would take place if all the governments agreed to abolish entirely the duty on manufactured silver. In this country it is 1*s.* 6*d.* per ounce. Of this, as you know, the Government gets 1*s.* 3*d.* and the Goldsmiths' Company 3*d.* for marking. If the entire duty were taken off, and the charge for stamping reduced, I have no doubt that the use of silver for household purposes would be enormous, and for other purposes large amounts would be used. Every married couple, as far as they could afford it, would buy silver, as they would look upon it as a reserve in case they wanted to turn it into cash, but to-day they cannot do it, because they have to pay 70*d.* or 80*d.* per ounce, for what would realise 44*d.* In India, we know that enormous amounts of silver are used for ornaments, and I have not the slightest doubt that throughout Europe, if the paltry duty, which brings our Government in 70,000*l.* a year, were taken off, in course of time there would be an enormous amount of silver used by the people, and, after all, it is the use of a commodity by the million that makes the demand, not its use by the upper classes.

6941. Do you consider that any material inconvenience has been felt by the trade or interests of the country in consequence of the fall or fluctuations in the value of silver?—I suppose by considerable inconvenience you mean pecuniary loss?

6942. Well, it has been suggested that, even apart from its producing a calculable loss on particular transactions, it hampers trade by introducing an element of uncertainty, and that anything which hampers trade, on the whole, is bad for trade; that has been the suggestion?—I think, in many instances, it must have caused loss, because the effect of the fall in silver was not to be foreseen. It might be contended that people trading with India were exposed to loss on the ex-

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change. Well, of course, there was an element of risk, but that element of risk exists in trading with every country that has not a fixed basis of exchange. If you trade with the River Plate you have the value in paper, but there are means of guarding against that risk. It has altered the mode of conducting trade, but I doubt very much whether it has ever prevented any man from carrying on his business with India, any more than with countries with a paper currency.

6943. It was suggested, rather in the case of China, that it hampered the trade by introducing an additional element of trouble and uncertainty which did not exist before?—Well, I am not in the China business, and I cannot say, but I should think the proof would be whether the trade with China had fallen off or not. That can easily be ascertained. I esteem figures more conclusive than theories.

6944. I suppose the suggestion would be that though it had not fallen off it had not increased so much as it otherwise would have done?—There has been a period of depression the last few years, and the total trade of the country in sterling figures has fallen off. The total of quantity should be considered, not the sterling value.

6945. I understand you to say that in the first instance at all events, there would be inconvenience felt in the trade by the fall, because being unforeseen they would lose so much on the transactions before they became aware of it?—Yes, for instance, those engaged in the corn trade could not foresee that wheat would decline to 32s. a quarter. I myself did not foresee the effect of the fall in silver. I have no doubt other traders did not see it, and consequently they have lost.

6946. Do gold coins and silver certificates circulate freely in the United States?—I believe that gold coins are not used much in the United States, because they prefer paper money, but silver certificates are taken the same as bank notes.

6947. (*Sir T. Farrer.*) Except in California, where there are gold coins?—California has gold, entirely gold.

6948. (*The Chairman.*) Can gold be obtained without difficulty in exchange for notes at the Banks of France, Germany, and Italy?—The Bank of France gives gold in exchange for notes for small amounts, but not for large, which of course would be required for export only. In that case special application must be made to the bank directors, who have always been ready to sell a certain amount of their gold bullion, not coin, at a premium. The highest premium I have known of late years has been $5\frac{1}{2}$ per mille; but the 20-franc pieces are so light from age and wear, that even if 20-franc pieces were obtainable at par, it would be preferable for exporters to pay this premium. The Bank of Germany gives large and small amounts of gold in exchange for their notes. They have been known, however, to make themselves unpleasant to bankers who have withdrawn large sums, for they guard their gold very carefully, and raise their rate of interest as soon as an export demand sets in. I do not know if the Bank of Italy gives small amounts of gold, but it certainly refuses large amounts. In fact, within the last three months gold has been at 1 per cent. premium in Italy; therefore that speaks for itself.

6949. (*Mr. Fremantle.*) But is the Bank of Germany bound by law to pay its debts in gold?—Yes, and does pay. Formerly when a banker took a large amount of gold they made themselves unpleasant. They are more sensible now. When anyone goes to the Bank of England with banknotes and demands gold he gets it at once, however large the amount. The bank, if it thought desirable to stop the gold demand, would raise its rate of discount.

6950. (*Mr. Birch.*) I think they pay at the Central Bank, at Berlin, but not at the branches?—That is a matter of detail. You cannot expect them to keep an unlimited amount of gold in all their branches. You go to the Bank of England at Liverpool and ask for 1,000,000*l.* sterling of gold, would they be able to give it you?

6951. (*The Chairman.*) Turn now to a different question. To what do you attribute the fall in prices which has been in progress in this country since 1874?—Well, I think if you refer to the Royal Commission on the depression of trade, their report would be much more valuable than my opinion. However, I will answer your question. The fall has not been continuous since 1874. From 1879 to 1882 there was a great recovery in prices, notably in coal and iron. From 1850 to 1874 there was a continuous rise in prices. First came the enormous find of gold in California and in Australia; then in 1860 occurred the American war, which released all the specie in that country, which went to a great premium, was of no use, and consequently exported. Besides that, a huge debt was created in a short time. This debt was so much wealth created in two or three years, because it was interchangeable for commodities. It was taken by England and Europe, and in fact discounted the labour of the people of the United States for years to come. Then in 1870 occurred the war between France and Germany.

6952. What were those bonds given in exchange for?—To pay the expenses of the war.

6953. But I mean, they were the purchase-money of materials that had been supplied to them?—Yes, and for the payment to their troops.

6954. Thus, so far as they represented a loan, it was only a change in the form, was it not; people had lent them money, and got in return the bonds?—There would have been no means of lending the United States money unless they created something to give as a security. They created a national debt, and Europe lent them money on the security of it. Just look at our wars. As England was developed by the increase of her national debt, so was America by the creation of her's. In two or three years this 600,000,000*l.* debt was created, which would not have existed but for the war. The debt formed a means of their obtaining money which they used after the war for the purpose of building their railroads and developing the country.

6955. (*Sir T. Farrer.*) It formed an addition to the medium of exchange?—Exactly so; it was not currency, but it was an addition to the medium of exchange.

6956. (*The Chairman.*) But do you mean that every additional loan by a foreign state adds so much to the wealth of the world?—I mean to say that it is mortgaging the labour of future years. It is wealth as long as future generations work to pay the interest and the capital. Then, again, in 1870 occurred on a rather smaller scale, but still on a large scale, a war between France and Germany, an enormous release of gold, owing to the suspension of cash payments by France and a creation of debt. Thus, you see, from 1850 till 1874 there was a constant increase of wealth—first the Australian gold discoveries, then two big wars, with the enormous increase of national debts. That brings us up to 1874, when the reaction began to set in. Another reason for the depression has been that the whole course of trade has changed. Formerly middlemen, which have almost ceased to exist, were obliged to keep a stock. Now, to-day, the consumer is brought into direct communication with the producer. It is not necessary to keep stocks so large as formerly.

6957. (*Sir W. H. Houldsworth.*) Was not that cause in operation to some extent before 1873, in fact, largely progressing before 1873?—Not to the extent. In 1873 we were not in communication with distant countries. I do not think we had a cable to Australia so early as that. I do not know the year in which the cable was laid to Australia, but now we are in communication by cable with every part of the world.

6958. But still, there was increasing communication of all kinds at 1873?—It had been increasing gradually; people did not adapt themselves to the new state of things. They saw prices decline, and thought they would recover, as experience led them to believe; but there were causes at work

which they did not perceive. One of these causes was the improved machinery in use. Take the article of sugar; the fall had been as much as 50 per cent. It is a little better now than it was; but still it has fallen to nearly half price. Well, that is owing entirely to the improved culture of beet in Germany, and not only to the improved culture of beet, but to improved machinery by which they are able to extract all the saccharine.

6959. Do you not think, taking the whole trades of the country, the improvement in machinery was much greater between 1850 and 1873 than it has been from 1873 to 1887?—It is questionable.

6960. Taking the standpoint that you were at 1850?—I should say the standard of improvement is higher now than it was then. Now a man has to improve upon improvement. Great improvements were made then, but they are refined improvements that are made now.

6961. That is just the point, that the great improvement which lessened labour and increased quantity, was that not rather made between 1850 and 1873 than between 1873 and 1887?—I think it has become more general of late years. You cannot take a greater example of it than sugar. The French first directed their attention to beet-root sugar, and they stood first in the market. They invented new machinery; but then came the Germans, who improved upon their machinery to such an extent that they ousted the French entirely from the market.

6962. Assuming, which you do, I think, that there was a certain improvement, I should say in most of the trades the largest improvement in the machinery, between 1850 and 1873, are you able to trace, from the statistics that you have looked at, any fall in prices at all due to that cause during that period?—I told you the reason why prices went up during that period, and afterwards began to fall, owing to the cessation of these enormous national debts, and the nations being obliged to labour more and produce more in order to pay them off.

6963. The improvement of machinery had no effect during that period?—Then came the great competition between nations. To-day we find that the United States and many other nations are competing with us in improving machinery. In fact, no man can be certain that his new machinery may not be improved upon to-morrow. Well, then as regards copper. The fall is distinctly traceable to the enormous new production in recent years in America and in Spain. Well, iron; what has caused the fall in iron? The increased manufacture in America, Belgium, and in Germany, and the competition between these countries, as well as the means discovered of producing iron and steel at a much cheaper rate. As regards wheat, I have explained the cause of the great depreciation.

6964. (*The Chairman.*) Do you consider that the country is suffering from any serious contraction of the currency due to a scarcity of gold?—The country is not now, nor has it been of late years suffering from a scarcity of gold, the proof of which is the low rate of money ruling now and of late years. Our accumulated wealth abroad is so great and our advances in cash and on credit to foreign traders are so large, that when gold does get scarce the Bank of England has only to raise its rate two or three times sharply, and gold is sure to flow in from abroad. Sometimes the effect is produced quicker than at other times, but the ultimate effect is invariable.

6965. To what extent and in what way are prices affected by the quantity of gold in this or other countries?—When gold, namely, money, is abundant, there are more buyers in every market, and sellers are less willing to sell, as they can hold their stocks upon borrowed money on such easy terms. Under this state of things prices rise. When gold, namely, money, is scarce, the reverse takes place; there are few buyers and all people are anxious to sell, and prices fall. The first state of things is called inflation, and the reverse depression. They always follow each other, but the only thing that varies is the interval

of time, but they follow each other just as surely as Tuesday follows Monday. After depression you have inflation, after inflation you have depression, only the intervals of time are not in all cases the same.

6966. Would you explain to the Commission your views as to whether an average high rate of discount indicates a scarcity of gold, and a low rate the reverse?—Well, in the event of an important bank failure, I have known discount to rule high without there being a scarcity of gold. When Overend and Gurney failed in 1866, the public, afraid of further bank failures, withdrew their money from the bankers and locked up bank notes. In 24 hours the reserve of the Bank of England was exhausted and it had to obtain permission to issue beyond the amount fixed by charter. The Government stipulated that whilst the over-issue lasted the rate of interest should be kept at 10 per cent. No further failures took place, and within two months the rate of interest was two or three per cent. Except in such a contingency it is impossible for money to be dear, without a scarcity of gold, or to be cheap without an abundance. It is equally impossible for money to be cheap and gold scarce, or money to be dear and gold abundant. As a proof that money is gold and gold money, and the scarcity or abundance of one cannot take place without the other, I must refer, which I daresay you know, to the working of our currency system. The Bank of England can issue notes against the amount of gold it has plus about 15,000,000*l.* All the bankers keep their balances at the Bank of England, therefore the bank holds not only its own reserve (the money which it has unemployed), but the reserves of the banks. Now, if I draw 500,000*l.* on a banker by cheque and pay it away, that money has no effect on the money market; it comes out of the London and Westminster account, and is put to the account, say, of the Union Bank; it is only a change of accounts at the Bank of England, but the amount of the balances which the bank keeps, the reserve, is not altered at all. But now, the only way in which the reserve can be diminished is by the withdrawal of gold either for home circulation or for export. If 1,000,000*l.* of gold is taken from the bank, whether it is for home circulation or for export, the Bank of England and the banks have 1,000,000*l.* less to lend. If 1,000,000*l.* of gold is imported, the bank reserve increases 1,000,000*l.* They have 1,000,000*l.* more money to lend than they had before the gold came. This, I think, proves conclusively that gold is money and money is gold.

6967. So that in your view it is impossible to have a scarcity of gold combined with the readiness of the bank to lend at a low rate of interest or discount?—That is the same thing; it is positively the same thing. What gives the bank and bankers money to lend is the amount of gold that flows in, and what makes the money scarce is the amount of gold withdrawn. It makes no difference when 2,000,000*l.* is taken from the account of the Union Bank and goes to the Westminster Bank, the balance remains the same; it is only the gold withdrawn for circulation or export that can have an effect one way or the other.

6968. (*Sir L. Mallet.*) But the question I want to clear up is this. I daresay you are aware that all the most authoritative writers on political economy, Mr. Mill among others, have contended that there is a radical distinction between the exchange value of money estimated in money, that is the rate of interest on a loan, or money and the exchange value of money estimated in commodities. We want to know whether you think that there is any necessary connexion between the rate of interest on money, on loans, on advances, and the relation between money and prices of commodities, because if you hold that opinion it is very interesting, and I should be extremely interested to know what your opinion is?—I have known times when the Bank of England had more gold, and I have known times when they had a smaller amount of gold than they have now. As regards the circulation that has varied considerably. The greater number of banks the less necessity there is for money circulating.

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6969. You think that the fall in prices, which you admit, is not due to any diminution in the quantity of money in circulation?—I certainly think it is not, and I think that the causes which were mentioned before the Commission on the Depression of Trade were so strong that I think it is absolutely settled, as far as human judgment can go, that it has nothing to do with it.

6970. (*Sir W. H. Houldsworth.*) And you do not think that the fall in prices is due at all to the extra demand for gold in Germany?—No.

6971. (*Sir T. Farrer.*) And you think further that the rate of interest paid for getting gold is an indication of the greater or less scarcity of gold; that is to say, that when a high rate of interest is paid gold is comparatively in demand?—This is what occurs year after year. After we have paid for our raw material, money gets cheaper and discount declines, gold returning to the bank. Then ensues the competition to lend money. The Bank of England has a large reserve, and together with the bankers forces the rate of interest down. It is at the present moment at 1 per cent. This drives money away from England, and in October or November they are obliged to use forcible means to bring it back.

6972. By charging a higher price for it?—Yes. Year after year it is the same thing, but that has nothing to do with the permanent scarcity of gold; it is owing to the avidity of bankers to compete with each other. The bankers take bills 1 per cent. below the bank rate, and then the Bank of England puts the rate to 2 per cent., and then bankers go to 1 per cent., or below that. It is a moral certainty that the Bank of England has to raise its rate again to bring back the gold. Therefore I contend you cannot say that the raising of the bank rate, or the lowering of the bank rate, has anything to do with the general scarcity or abundance of gold. My own conviction is, that if the Bank of England never went below three per cent. there would not be such frequent or violent changes in the rate of money. Neither the Bank of France nor the Bank of Germany ever go below three per cent. The consequence is that their changes in discount are about one quarter what they are in the Bank of England. I think that the raising or lowering of the rate of discount by the Bank of England does not prove a continuous abundance or scarcity of gold.

6973. (*Mr. Birch.*) What would be the effect of the raising of the rate of the Bank of England; does it attract gold now just as much as it did previous to 1873?—Just as much.

6974. We have the same command over the markets of the world as we had previous to 1873?—If the rise of the bank rate is an effective one it is sure to bring back the bullion, and the more effective it is made the sooner the bullion will come back.

6975. (*Mr. Barbour.*) I think you said that if there was an international agreement for bimetallicism and there was a chance of war the nations on the continent might begin to draw in gold and so excite the suspicions of the other nations, the other members of the bimetallic agreement?—Yes.

6976. But does not the same thing take place under present arrangements; if there is danger of war the Bank of France tries to get as much gold as it can?—Yes. You asked me whether I thought that they would adhere to that agreement? I do not think they would.

6977. What would be their object in not adhering to it; how would they gain by not adhering to it?—To obtain gold, which is a much more effectual agent than silver. A door can be opened with a gold key which a silver key would not open.

6978. But wars have been carried on very effectively by nations that had only a silver standard. For example, Germany, in the last war in which she was victorious, had only a silver standard?—But she had the command of gold and got gold for the purpose of carrying on the war.

6979. Does it not follow that if a country with a silver standard can get enough gold to make war

successfully, *a fortiori*, a country with a bimetallic standard can get enough gold?—Well, I contend that if you are going to swamp the world with silver gold will be such a scarce article that it will be more difficult to obtain. You ask me a simple question whether I think they would adhere to that arrangement? I think not. First of all, in Germany military considerations go before anything, and she will think that gold is a more effectual agent than silver, and, as I said before, she has an idea that the gold standard has given England the pre-eminence in trade, and she wishes to imitate her in that respect.

6980. In speaking of trade, we get away from the question I raised, which is a question of war. Germany with the silver standard found gold enough to be successful in a great war, therefore it was not necessary for her to abandon her silver standard in order to find as much gold as was necessary for war?—She had not gold then; she went to war in spite of having silver; but now, having gold, she will make herself as strong as possible on the gold basis.

6981. (*The Chairman.*) Do you think mistaken motive will operate again in urging her to hold her gold, rather than her silver?—She will hold her gold, which will always have a greater attractive power. It will appeal to the weaknesses of mankind more than silver, at any rate, during our generation.

6982. (*Mr. Barbour.*) I think that you hold that great benefits have accrued to England from the decline in the price of silver?—Yes.

6983. Would you put any limit to these benefits if silver continued to fall; is there any stage at which the fall in silver would cease to be beneficial?—As regards England I should say no, the lower it goes the better it is. As regards India there comes the disarrangement that it would produce in Indian finance. I do not think it would do any harm to the country, but it would increase the loss which the Indian Government would make. The question is whether the loss which can be measured certainly in certain millions of sterling would not be small in comparison to the enormous benefit the nation would derive.

6984. At what point do you consider the advantage would cease, and the loss begin?—I do not think it is worth taking my evidence on such a point.

6985. One of the great gains that England has made arises from the fact that she is owed a great deal by foreign countries, and gets more commodities in payment of the debts due to her?—Yes.

6986. She is owed a great deal by India?—By the whole world.

6987. By India and Canada and Australia?—Yes. The Argentine minister stated at a dinner given last Saturday that the Argentine Confederation owed 100,000,000*l.* to England.

6988. And a portion of the benefit is drawn from India and the English colonies?—What benefit?

6989. The benefit to England from the fall in the price of commodities. The English colonies and India, owing to this cause, have to send more commodities to England to pay their debts?—Naturally. That is why we get our commodities cheaper.

6990. I think you said that if the Bland Bill were repealed there would probably be an increased demand for gold to take the place of the silver in the American currency; that if the rate of interest was high abroad the Americans would have to do without that gold, and American prices would fall?—Yes.

6991. And if American prices fell, would not that lead to an additional export of commodities from America?—Probably we should get more commodities, and that would be another reason why we should be able to buy them cheaper.

6992. And would not the balance of trade be turned in favour of America, and would not gold go there to pay for those commodities?—No, the amount of money which is outstanding in America for English account is so large that the bankers have but to draw it in to turn the balance of trade. The amount of English money, bankers' money, at loan for short periods in the United States is something enormous at the present moment.

6993. (*Sir T. Farrer.*) Could you put any figure at all?—No, I do not like to put figures, but it is large, very large.

6994. Much larger than the Argentine Confederation?—Oh no, not 100,000,000*l.* In America it is bankers' money which could be called in within 60 days, and which would be quite enough to check any power of America to take gold.

6995. (*Mr. Barbour.*) Then you think no matter what the fall of prices in America might be, gold could be kept from flowing from this country to America?—If the Bank of England deemed it right that her reserve should not be any smaller, she has the means of preventing it, as she has done on many occasions.

6996. She has the means of preventing gold from flowing out of the Bank of England?—Yes, of preventing her reserve decreasing, and of increasing it.

6997. Has she the same power over other gold in the world?—I do not know who would call in his money, whether he trading with America, or France, or Germany, or the Netherlands, but I mean to say that the collective amount of money abroad is so large that sufficient would be called in. They would not find it any longer profitable to keep their advances out, and they would call them in, and thereby the position of the bank would be strengthened.

6998. I think you said that the fall in silver was due mainly to increased production and reduced demand, putting it generally?—I said it was caused by there being no longer a permanent outlet. There was an outlet formerly when the mints of the Latin Union were open, there was an outlet for it to any extent.

6999. I included that under the head of reduced demand?—I think it should not be so included.

7000. And that affected the value of silver?—I should say there has been an increased demand, to have worked off an increased annual production, in addition to the large amount that Germany has sold.

7001. But the German silver that was sold is all out of the market years ago?—Oh, yes.

7002. Then what is the cause of the present low price of silver?—I have stated the cause previously.

7003. The demand is reduced below what it was in former times?—I do not say the demand is smaller than former times, but the supply is much greater.

7004. Where is the demand larger?—The amount of silver which is produced in the world has nearly doubled itself, yet the excess of silver is not large. The production has increased very much, but there is not an enormous amount of silver weighing on the market.

7005. Would it be easier to get 20,000,000*l.* or 30,000,000*l.* of silver now than it was 20 or 30 years ago, if it were wanted for a special purpose?—Not so easy. Formerly one had but to take French or German coin from circulation, which is only feasible when silver is about 60 pence per *oz.*

7006. So that if a special demand for silver arose, like that which arose in the time of the Indian mutiny, there would probably be a very large temporary rise in the price of silver?—Yes, a very large temporary rise.

7007. That would interfere with business a good deal for the time?—Well, any violent change interferes with business. Many people like it, I do myself.

7008. We have had some evidence given to the effect that silver was quite discredited in Europe. Is that your opinion?—In Europe it is no longer coined except as tokens.

7009. Would the nations of Europe that have got silver find it practically impossible to get rid of it?—The loss would be so enormous that it would be practically impossible.

7010. I suppose if a nation that has got silver went to war and issued paper very largely, it might drive the silver out?—If their paper went to a greater discount than silver is to gold.

7011. But excepting in that way you do not see any chance of their getting rid of their silver?—No.

7012. (*Mr. Birch.*) You said that the Bank of France at present holds about 45,000,000*l.* sterling in silver. Have you any idea what amount of silver is in circulation?—Well, it is only an idea, I have no basis for it. I should think the public hold from two to three milliards francs.

7013. Of course, all the money that is in the pockets of the people, supposing the ratio were changed, would have to be taken into consideration as well as the 45,000,000*l.* held by the Bank of France?—Oh, naturally; if you were to decree that it shall be all recoined, the nation or the Government would have to bear 35 per cent. loss.

7014. You were asked also with regard to the probable future of the silver market. From time to time we have heard of the possibility of China being developed with railways. Anything of that sort would make an extraordinary demand for silver in all probability?—Well, it might. But I never prophesy unless I know, and I do not.

7015. In regard to what Mr. Barbour said just now, an active demand for silver might lead also to a very active demand for manufactures, for railway plant and other things. Supposing China did start railways, there might be a demand for silver, for currency, and at the same time there might be a very large demand for railway engines, rails, and other things, and revival in trade generally?—I read in the paper, I do not know whether it was to-day or yesterday, that the Chinese were to build their own railways and find the capital there. That being the case, I do not see that it would produce a demand for silver at all.

7016. It might make a demand for railway material?—It would make a demand for rails, which they would have to pay for. That would not make a demand for silver, but the reverse, therefore it is no use discussing the future, which no one can speak of with certainty.

7017. I think you said gold in Italy commands about 1 per cent. premium?—No. I said within the last three months.

7018. Then she has not derived the advantages she expected when she made her loan for improving her currency?—I do not know. At any rate, it has been a nominal return. She may have derived advantages by this artificial return, but I cannot say.

7019. (*Sir T. Farrer.*) You say you do not like to prophecy, but can you form any opinion on this point. We have been told that if this country were to adopt bimetalism at a ratio of 15 to 1 or 15½ to 1, people in the city of London would still make their contracts payable in gold. Can you form any opinion on that point?—Well, it is quite possible. In America, during the war, and after the return to specie payments, and even to-day with gold obtainable to any amount, contracts are made, loans are contracted, and it is stipulated that the interest and the capital shall be payable in gold. I think it is possible that people might, in lending money for a lengthened period, guard themselves by taking such precautions, and I think that making a loan payable in gold would be a means of making it attractive. There is a large amount of American loans which are made payable in gold.

7020. That, of course, was for the purpose of borrowing abroad chiefly?—And at home.

7021. You have spoken of the quantity of debts due to this country abroad, and one sees various estimates; are you able to put any figure at all upon the amount of English capital invested abroad; do you think it is possible to do so? Are those debts increasing or diminishing; are we lending or are we drawing in capital. Can you form any opinion?—I should think that we are always going on lending. One of the principal outlets for our savings is to lend foreign nations, and they come to this market. There are other markets which are open to them now which they had not in former days, but still they do come to England very freely.

7022. (*Mr. Fremantle.*) Speaking of the price of silver, I think you said that the German Government

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had disposed of its stock of silver?—No, not all, but a large quantity.

7023. Is it known how much remains?—The Bank of Germany does not publish their stock of gold and silver.

7024. I suppose there has been another reason for the fall in the price of silver, and that is the constant uncertainty as to what might be thrown upon the market from one source or another, especially during the period shortly after the demonetization of silver by Germany?—Well, of course, there have been moments when fear has acted upon the holders of silver, and has produced a great fall, but there have been periods when, for months, there has been a steadiness, which has proved that fear was then absent from their minds.

7025. Do you think there is any fear now as to the future?—No, not just at present, but it might be induced if Congress meets, which they are bound to do before December, to re-arrange their currency laws, and if they were to repeal the Bland Bill.

7026. (*Sir W. H. Houldsworth.*) Do I understand that your main objection to an international agreement for the adoption of bimetallism is the fear that, under certain circumstances, some of the powers so agreeing might depart from the agreement?—I did not give that as my main objection. That would be one of the reasons why I think if they did agree that they would not carry it out, but that was not my objection. My objection had very much higher grounds than that. In answer to a question in which I was asked whether it was in the power of governments to maintain a ratio if agreed upon, I answered that governments were all potent, and had the power to do anything, but I think circumstances would arise which, from jealousy and other reasons, would induce them, even if they observed it in the letter, to violate it in the spirit, by buying gold, but I did not give that as my reason why I was opposed to bimetallism.

7027. Putting aside that objection for the moment, may I ask you what your objection to the adoption of bimetallism by an international agreement would be?—I think I have already pointed out that we are deriving great advantage from the present state, that we are getting all our debts paid in gold, and that we are able to pay silver currency countries in silver and use the silver countries in competition with gold countries, and oblige them to sell their produce to us on similar terms.

7028. It would be that the interests of England are decidedly against such an arrangement?—Are most decidedly against it.

7029. Would the interests of the other powers be the same?—The other powers are not in the same position as England. They have not got large sums abroad. They are not large creditor countries. The United States is a silver-producing country, and has a double standard, and France has the double standard, therefore, are both likely to favour an arrangement. If you got into a mess you would be very glad if all your friends got into a similar mess. That is the feeling they have.

7030. You said, I think, that low food meant low wages; do you think that that is so?—Is not the lowness of the price of food dependent upon the supply and demand of food, and is not the rate of wages dependent upon the supply and demand of labour, and is it not possible to conceive that you might have a state of the labour market and a state of the food market which would produce a different result from that stated?—I should think, if the state of the wages market were in contra-distinction to the state of the food market, it would produce an effect, but that effect would be one which would be revolution and discontent. The people must live, and I cannot conceive that for any length of time wages can be low and food high.

7031. Take the reverse supposition, however, that you had low food, and that the labour market was not overstocked, that you might have wages continually rising?—That is what you have seen during the last few years. You have seen that wages have not fallen

in the same proportion as produce, and therefore the people are in a happier and better fed state than ever they have been.

7032. Do you attribute that to the state of the labour market; do you consider that the labour market is so placed that wages have not come down; is that the reason you give?—No, I only know that the wages of the people have not increased, but taken as a rule they have not decreased, whereas as to the necessities of life, they can obtain for their wages a great deal more than they could formerly. They live more as human beings ought to live, in fact.

7033. Well, you think that the fall of gold prices, which has manifested itself in commodities, will not ultimately reach wages?—I really cannot prophesy about what may take place; the unexpected takes place. If you ask me my tendency of opinion I think values have reached a very low point, and most likely will recover. It may take some time. Just the same with produce as with mines, it is a long time before a man will give up working his fields because they leave a loss. I find in commercial affairs everything has its balance. If you have very low prices the inevitable effect ultimately is to bring about causes which will work a cure, a rise, but it takes time.

7034. But are you not aware that manufacturing trade is very unprofitable at the present moment?—I am not aware of it. I was talking, only last night, with one of the most intelligent men, and he said: "The whole thing is changed; what an English manufacturer wasted a German could live on." He said: "For a man to succeed now he is obliged to give his whole mind to it; he is obliged to look after economy, and where that is done profits are made, but where the work is carried on in the old style, and there is no thrift or economy, there of course people do not do well."

7035. And you think that now manufacturers are making as much profit as ever they were?—No, I do not say that, but they are making a profit. I think the age of large profits is past.

7036. You are not aware of any manufactories or industries that are declining or decaying?—I daresay there are plenty of them; men who have not got the intelligence, or if they have the intelligence, have not got the opportunities. You may just as well ask me if every intelligent man in business succeeds? I say no. I have seen great fools succeed and intelligent men go to the wall, but I say in general the character of English trade at the present moment is that the profits are not anything like so great as they used to be, but there are profits and fair ones.

7037. Can you give any opinion as to whether the labour market is overstocked at the present moment?—I cannot, but the population increases so fast in this country that over-population is the chronic state. There must be a large emigration every year, otherwise the labour market would be overstocked to a great extent.

7038. Do you not think that it is a serious evil, although it may be temporary, to the industries of the country when gold prices of all risks to manufacture decline, and when certain elements of cost, such as rent and wages, do not fall?—No, I think it is a great advantage. It is a great disadvantage for the capitalists, but a great profit for the million; for the masses have the advantage if their wages keep up, and they can buy more for them, and therefore I believe at the present moment that affairs are shaping themselves in a very desirable way, that big fortunes are not so easy to acquire as they were, but that the people are working themselves, have worked themselves, into a better position, and will work themselves into a better still.

7039. But you said, I think, that it was an evil to the capitalist?—To the capitalist it is an evil, if you call it an evil. Mr. Morley, the other day, said it was a great public benefit, and I dare say he knows what he says. He said there were only 90 people who paid 50,000*l.* a year income tax, and a very good thing that there were not more, and a pity there were not

less. He says it is a disadvantage; I do not see that it is a great advantage to a country that there should be so many enormously wealthy people.

7040. And I think you do not believe in the depression of trade at the present time?—No, I do not; but all those things can be proved. If you take the figures you will find that the sterling amount of the trade is smaller, but not the quantities.

7041. (*Mr. Barbour.*) And I suppose the capitalist gets great advantages in the increased amount of wealth he receives on account of foreign debts?—He receives a great advantage, yes. Well, he shares the advantage with the masses; but it is more to the mass of the public than it is to himself. If he finds his household commodities 20 per cent. cheaper, it cannot make a very great difference to him.

7042. (*Sir W. H. Houldsworth.*) You have referred to the report of the Commission on the Depression of Trade. Are you aware that this sentence is in it; speaking of the fall in prices caused by the appreciation of the standard of value, "We desire to give it a leading place in the enumeration of the influences which have tended to produce the present depression"?—No, I was not. On the contrary, I thought their conclusion was that it had a very slight effect upon the depression.

7043. (*Sir John Lubbock.*) You stated a short time ago that prices had fallen everywhere excepting in India. Do you really mean to say everywhere, or were you thinking of comparison with this country. Have prices fallen in other silver countries, such as Chili?—I do not know what has taken place in Chili, but I see no reason to doubt that the effect in Chili would be very much like what it has been in India.

7044. Therefore, in countries where there is a real silver standard you would be disposed to think that, as in India, prices would not have fallen?—Prices would not fall, most decidedly.

7045. Therefore, you did not mean by that answer to say that in other silver-using countries prices had fallen?—I mean in the gold countries. I was comparing India with the gold countries, and I said, in India they had not fallen, whereas in all other countries—I mean gold countries—they had fallen. Of course, the effect in one silver country and the other would be about the same.

7046. You mean, in fact, that prices, in your opinion, have not fallen in the silver-using but have fallen in the gold-using countries?—Yes.

7047. When you said it was impossible for money to be dear and gold firm, I gather that you used the words "dear money" not merely as we all of us do, as an ordinary colloquial expression, but as implying, in your opinion, that dear money really is identical with a high rate of interest. Of course, I might myself talk about dear money, but I should do so merely as a colloquial expression; but I gather you intended to express the opinion that the fact of the rate of interest being low showed that there had been no increase in the relative value of gold to commodities?—That there was an abundance of the circulation, or the medium for circulation.

7048. Well, when you expressed that opinion were you thinking of the value of the gold or of the stock of the gold?—I am talking of the stock of gold. It shows it by the reserve at the Bank of England, whether the bank and bankers have much money to spare or whether they are short of money.

7049. But you surely do not mean to say that we always have a high rate of interest when there is a low amount of bullion at the Bank of England, and a low rate when there is a high amount of bullion at the Bank of England?—Yes, most decidedly.

7050. Is it not the case that in 1851, for instance,

the stock of bullion in the Bank of England was 14½ millions?—Very likely.

7051. And the rate of interest was 3 per cent.?—Very likely.

7052. In 1866 the stock of bullion was in round numbers 15 millions and the rate of interest was 7 per cent.?—Yes.

7053. Therefore, the rate of interest was more than double, and yet the amount of bullion in the Bank of England was greater?—Yes; but these 14,000,000*l.* of gold may have been as efficient as 20,000,000*l.* or 24,000,000*l.* is now. Since 1851 notably there are 36 years, and you have had an enormous increase of circulation. You have had an enormous increase of the prosperity of the country, but then again you must take the other items of the bank. If all the other items of the Bank of England are in proportion, they may have been relatively as strong with 14,000,000*l.* as with 20,000,000*l.* to-day, if her engagements were in proportion. I think when you look at the stock of bullion in the Bank of England, you must look also to what the engagements of the bank were at the time, what her other securities were, the circulation of bank notes, &c.

7054. That is quite sufficient for me. You now say you must take all the circumstances into account, that is just the point on which I wished to obtain your opinion?—The other items of the bank's account must be taken into account.

7055. When the gold discoveries were made there was great apprehension that gold would fall very much in value, was there not?—Yes.

7056. And you, I presume, would argue that we were wise not to alter our standard under the influence of an apprehension which has turned out to be quite unfounded?—Undoubtedly, we were wise not to do it.

7057. And that is part of your argument, as I understand it, why we should not alter our standard now?—No, I said that when gold was found in such abundance, if we had altered our standard and made all the new gold that was coined the weight of 6 dwts., whereas the existing gold was 5 dwts. 3¼ grains, the new coin would not have passed into circulation, but would have been kept back for the purpose of export. I merely mentioned that for the purpose of showing the absurdity of having two silver coins of different weights in circulation at the same time. I wanted to show the absurdity by bringing it home and applying it to gold, and to show that sovereigns weighing 5 dwts. 3¼ grains, and sovereigns weighing 6 dwts., could not remain in circulation side by side.

7058. There were many who were anxious to alter the standard, under the influence of the gold discoveries, and under the idea that gold would very much fall in value?—There were people.

7059. You think it is very fortunate the change was not made?—Yes. Whatever amount of gold, although 50,000,000*l.* of gold came in to-morrow, there would be no sense in altering the standard. Prices would alter, and the thing would adjust itself, but there would be no need to make any alteration of the standard. If there was such an abundance of the circulating medium then prices would conform to it.

7060. You stated in part of your evidence that the Bank of England held the reserves of all the other banks. You are aware that the banks also hold reserves in their own vaults?—No, I am not aware that they hold reserves in their own vaults. They may hold a small amount of bank notes to meet the daily demand, but if you went to any of these banks and asked them for 50,000*l.*, they would give you a cheque on the Bank of England to obtain it.

7061. You are aware that they have always denied that statement entirely?—Have they? I am not aware of it.

Mr. H. L. Raphael.

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The witness withdrew.

Adjourned till Friday.

Twenty-ninth Day.

Friday, 15th July 1887.

PRESENT:

THE RIGHT HON. LORD HERSCHELL, the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.
MR. J. W. BIRCH.
MR. HENRY CHAPLIN, M.P.
MR. L. COURTNEY, M.P.

SIR T. H. FARRER, Bart.
MR. C. W. FREMANTLE, C.B.
SIR JOHN LUBBOCK, Bart., M.P.
SIR LOUIS MALLETT, C.B.

MR. GEO. H. MURRAY, *Secretary*.

Sir EVELYN BARING, K.C.B., K.C.S.I., called and examined.

Sir
Evelyn Baring,
K.C.B.,
K.C.S.I.

15 July 1887.

7062. (*The Chairman*.) You were for some time Finance Minister in India?—I was. I should wish, before giving my evidence, to say that it is some three or four years ago since I devoted close attention to this difficult subject, and my knowledge may be a little rusty; if my answers, therefore, are not so full as is desirable, I would beg the indulgence of the Commission.

7063. But you have no reason to suppose that the aspect of affairs has materially changed since that time as regards the relation of silver to gold?—I should think it has got more serious as regards India.

7064. You necessarily had your attention directed to the fluctuations in the value of silver in relation to gold?—I had; but the question had not assumed anything like its present proportions when I was Finance Minister of India, and specially when the larger reforms of 1882 were carried out; although there had even then been a considerable fall in the value of the rupee.

7065. I do not think we have the date that you left India?—I left India in September 1883.

7066. So that your practical experience in India was for some years prior to that?—My practical experience was for three years prior to that.

7067. (*Mr. Barbour*.) And before the time of which you speak you had had some experience of India during Lord Northbrook's administration?—I was for four years in India as private secretary to Lord Northbrook; from 1872 to 1876.

7068. (*The Chairman*.) Would you be good enough to assist the Commission by giving them the result of your experience with reference to the financial effect on India, as regards the Indian Government, of the fall in the exchange value of silver?—Of course, that is a very big question and covers a very wide ground. The effect is, I think, of the most inconvenient description, more especially on account of the very great instability in the value of the rupee. The low rupee is a very serious thing. I do not at all want to underrate its importance, but within certain reasonable limits it would be possible for the Indian Government to adjust its financial system to a rupee of any value. I do not think you can carry that argument so far as to say that the Government could, for the present, at all events, adjust its system to a rupee of 10*d.* or 1*s.*, but I repeat that within certain reasonable limits it would, no doubt, be possible for the Indian Government to adjust its finances to a rupee of whatsoever value. But what is so disastrous to India is its constant instability. The Finance Minister forms his budget at the beginning of the year, and as matters now stand, it is a mere matter of speculation how his budget will turn out. He cannot tell within

several hundred thousands of pounds. I look on the budget now as really little more than a matter of gambling. This is a most serious matter, which, I think, requires the very earnest attention of the Government and of Parliament. I think since I was instrumental in carrying out the large reforms of 1882 the rupee has fallen from 1*s.* 8*d.* to as low as 1*s.* 4½*d.*, that is about 3*d.* difference. Well, that represents three crores of rupees, 3,000,000*l.* Of course there is some compensating advantage on the other side, but not enough, I think, to compensate for the large loss that has been sustained, and certainly not to compensate for the great instability. That, I think, is the great point.

7069. It has been suggested that the people of India have gained industrially by the fall in the value of the rupee, and that, therefore, additional taxation might be imposed to meet the deficit caused by the fall resulting from the necessity of transmission for the purpose of gold payments here. What do you say to that?—As to the question as to whether the people of India have gained industrially, I leave that aside for the moment. To answer the second part of your question, I should say that up to a certain limit the imposition of additional taxation is possible, but not to a very large extent. The first thing, I think, that has to be remembered by every Finance Minister in India is, that the people are extremely poor, and although it seems rather paradoxical to say so, to a certain extent they are becoming poorer by reason of our good government. What I mean by that is, that by reason of sanitation, which, to a certain extent, prevents disease; by reason of the adoption of the principle that nobody should die of famine; and by reason of the railways and canals, which prevent people from dying of famine, the natural checks on the population which existed in the old Mahomedan days are taken off, and very properly taken off; but still the result is that the survival of the fittest argument does not hold good in India any longer, as it did in the old days of Mahomedan government; the population is becoming more and more dense; there is a greater pressure of population on the soil; therefore, in spite of these improvements, a great part of the population are as poor, and perhaps even poorer, than heretofore. When I was in India, Mr. Barbour, who was my financial secretary, was good enough to prepare a calculation as to the wealth per head of the population of India. It was extremely difficult to make, but as far as my recollection serves me, I think he calculated that 27 rupees per annum was the average income of an individual in India. I need hardly say that that is an extremely small sum, and the result is that the native of India is one of the most untaxable creatures in the world. Now as to the different items which admit of an increase, of

course the first and great item is the land tax. Well, it might be argued, and it often has been argued as a mere matter of academic interest, that, inasmuch as the Government has to pay more rupees for its material, such as rails, &c., and more rupees for the interest on its gold debt, therefore, the rupees to the Government are worth less than the rupees at the time the settlements were made, and, therefore, that it would be perfectly just for the Government to take more rupees from the landowners and cultivators in the shape of the land tax. I have always looked on that as a matter of theoretical argument and nothing more. Certainly I do not think that any finance minister or any Government would ever dare in India to propose such a thing as a *pro rata* raising of the land tax during the currency of a settlement on such an argument as I now indicate. It would, of course, be possible as the settlements fell in. Some of the settlements are temporary, and as the settlements fall in, it would be possible, though extremely difficult, to have some sort of sliding scale or arrangement under which the land tax could be raised in proportion to the relative value of gold and silver. That would be a process of very slow operation, because the settlements only fall in very gradually. I look therefore upon the land tax as almost impossible to touch. There are political objections to touching it, which are so serious, that I do not think any Government would dare to do so. Indeed, I go so far as to say, that if India were ever to be in such a position as to be obliged to choose between an arbitrary and *pro rata* raising of the land tax and a partial repudiation of the debt, I really think it is a questionable thing which is the least objectionable of the two. In fact, I look upon the raising of the land tax in the form of which I speak now, as perhaps the most objectionable measure possible in India. It is the most revolutionary measure conceivable, and I do not think any Government would dare to propose it. Well now, that cuts away at once something like two or three and twenty millions of the revenue. Then there is the salt revenue. Certainly, although it is very objectionable to raise the salt duty, it does admit of being raised. When the duty was lowered in 1882, it was publicly declared in my budget statement that it was lowered with the view to constituting a financial reserve. It was thought undesirable to dwell in public very strongly on the possibility of raising the tax, but certainly in my own mind at the time I was very much struck with the weakness of the financial position by reason of the absence of any financial reserve, and I thought the salt tax was the best reserve. Of course I am quite prepared to admit that the weak part of the argument is that two rupees a maund, which is now the amount of the tax, is hardly low enough to constitute a really good reserve, but I had hoped possibly, as consumption increased to make good the amount which was lost by taking off the tax, that the tax might in the course of some years be brought down until it reached one rupee, and then it would constitute a real reserve.

7070. Has the consumption increased?—Mr. Barbour would be better able to give you information as to the increase, but I think when the duty was lowered the loss was about 1,400,000*l.*, and it has recovered to the extent of perhaps rather less than one-half of that amount, about 500,000*l.* To continue my answer on the larger question which was suggested to me as to the possibility of raising further taxes, I think that the salt tax might be raised, but the increase would all fall upon the poorer classes, and it would be a most undesirable thing to do; but still it is a possibility, and it was a possibility which was present to my own mind when the salt duty was lowered. Excise is one other large item of revenue. Well, no doubt, as the population increases, the excise revenue will increase gradually, but there are some very obvious moral arguments that apply to excise questions. You cannot, particularly in India, treat excise in the same way as any other purely fiscal question; no great

increase of the excise revenue is, therefore, to be anticipated. Opium is another very large item. There, certainly, nothing that the Government can do can raise the revenue, and I have always looked upon it as dangerous to rely even so much as at present on opium. I look upon the opium revenue for several reasons, which I could indicate if it were worth while to do so, as rather a precarious revenue, and I should be very sorry indeed to see further reliance placed upon it.

7071. (Mr. Barbour.) Are you aware that the price of opium has fallen considerably since the recent convention came into force?—No, I was not aware of that; but that strengthens my argument. Then there are the Customs duties. I have dealt very summarily with every one of the large items of revenue except the Customs duties. If it became a question of life and death to India, it would be possible to impose the import duties again. I think it would be a most extremely objectionable measure, and I should be very very sorry to see it done; and I may mention that when the Customs duties were taken off, although, as I mentioned, the silver question had not attained its present importance, still I foresaw that it very likely would become very important; but I thought at the time that one of the best ways of putting India in a position to meet its difficulties was to allow India to exchange its produce at the best possible advantage with other countries. I shall always maintain that the measure was taken strictly in the interests of India, that it has been very beneficial to India, and that it was one of the very few questions in which we were justified in going rather in advance of native public opinion. At the same time, it was a very good thing, from a political point of view, to get rid of a question which was a constant sore between this country and India.

7072. (Sir L. Mallet.) You have dilated in your observations on the difficulty of increasing taxation in India. I should like to ask you one or two questions with regard to some of the items. To begin with the last,—the Customs duties. You are aware that there is a very strong feeling on the part of a great many people in India, especially among the better class, that the repeal of the Customs duties, and more particularly the abolition of the import duties, with some rare exceptions, was a great mistake, and the Government of Lord Lytton, which commenced that reform, and the Government of Lord Ripon, which completed it, under the financial guidance of Sir John Strachey in the first case, and your own in the second, has, as you know, been exposed to very severe criticism in consequence of the removal of what was considered an important source of revenue in the face of the great financial danger involved in a possible fall of the rupee. Well, you have stated, generally, the reasons which actuated you, at all events, in pursuing the course of the reform and completing the policy which you found had been already commenced by your predecessors, but I gather from your evidence that you desire to place on record before this Commission your distinct opinion that those measures of tariff reform, so far as you are concerned, were adopted deliberately, but that you were quite aware of the possible danger impending over the exchange, and that, notwithstanding, you considered that the advantage to India from a free trade policy and from alleviating its trade from the burden of import duties was more than sufficient to counterbalance that consideration, and if you had again to make a decision you would see no reason to alter the course which you then took?—Certainly, that is my opinion. I should only like to qualify it in one respect. I think the only really fair criticism that I have heard advanced against that measure was that we should have dealt with the export duty on rice before we dealt with the import duties. I have always thought that that was a fair criticism, and it was brought against me, I remember perfectly well, when I was arguing the case in the Legislative Council. I always recognised that the criticism was an ex-

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ceedingly fair one, and I am not prepared to say that if we could go back to 1875, and deal with the whole question once again, that it would not be wiser to take off the export duty on rice entirely, and make a *pro rata* reduction of the import duties, rather than do as we did. But, doing as we did, I think it was an enormous benefit, economically and politically, to India, and I do not in the least regret that it was done.

7073. Was it not the fact that when the abolition of the cotton duties was decided upon, the trade had been so hampered by the previous step that had been taken by Lord Lytton's Government, that it then became a matter of almost urgent necessity for Lord Ripon's Government and for you to take the course that you took?—That is clearly the case as regards Lord Ripon's Government; but I have so far been rather considering the question as a whole, and not merely in the aspect in which it presented itself to me in 1882. The position with which I had to deal was rather a peculiar one. I found that the duties on grey goods, the lower class of goods, had been taken off because they acted protectively. I also found that the duty on certain articles had been taken off in what was called the general tariff, which created a number of very great anomalies. I cannot remember them now in detail, but they will be found in the statements at the time. This situation of affairs rendered it imperative to deal with the import duties in a very comprehensive spirit; it was necessary either to go back to the tariff of 1875, and thus repeal the alterations made by Lord Lytton, or to sweep away the import duties altogether. I had no alternative under these circumstances but to sweep away the import duties altogether. I quite admit it is a fair criticism that the export duties ought to have gone first, because the abolition of the export duties would have been extremely beneficial to India, more especially in view of the rupee difficulty.

7074. I gather from your remarks that, although you admit that under the particular circumstances of the time, it was necessary to commence by a reform of the import tariff, that you consider as an abstract question that the export duties were even more urgent in the interests of India?—Certainly.

7075. That being so, of course I presume that you consider that the abolition of the export duties is still a question urgently required in the interests of India?—If money were available, I have no hesitation in saying, so far as my own knowledge goes, that it is the very first step that should be taken; I look upon that as the most important fiscal reform that can be made in India, and I always immensely regret that while I was in India I was not able to crown the free trade edifice by abolishing the export duties.

7076. Therefore you are of opinion, I presume, that a very important and urgent financial reform which would benefit the trade and people of India is postponed indefinitely in consequence of the present financial difficulties in which the Government of India finds itself, largely owing to the uncertainty in the value of silver?—Certainly.

7077. Then with regard to the opium question; you are aware that in this country it is a political question which very often causes a great embarrassment to the Government, and I gather from your remarks that you are of opinion that the opium revenue is a source of revenue which the Government of India can only look to with very great qualifications as a permanent source of income?—I think it is precarious for several reasons. To begin with, the crop itself is a precarious one. The poppy is a very delicate plant. Occasionally hailstorms happen at a critical moment, and in a few hours the greater part of the crop is destroyed. During the three years while I was financial member of Council of the Indian Government I think there were certainly two, if not three, extremely bad crops. The result was that the opium reserve fell to a very low point, and we began to be rather doubtful whether we should have enough opium to sell. Then there is

another element of precariousness, and that is, that other crops may take its place, and the Government may have to pay more to the ryots for cultivating opium. There is a third element, which is that I think any revenue which depends on taste must always be open to considerable danger. I imagine, for instance, that cigarette smoking must have influenced the trade in cigars in this country. Certainly anybody who has given any attention to the history of tastes in wine in this country must know that there have been very great fluctuations in taste during the last century. In the same way as regards the Chinese smoking opium, I think the revenue is open to the danger that the Chinese may not care about Indian opium, but may care about other opium—their own opium to wit. There is also the fact, as to which I collected a good deal of evidence, that the Chinese opium is increasing in quantity, and, I believe, improving in quality; it may take the place of Indian opium. The opium question also excites hostile attack in Parliament, although I have not heard anyone in Parliament say how the opium revenue is to be got rid of; at the same time members of Parliament attack it, and that is a source of danger.

7078. As regards the salt duties, I think I gathered from your remarks that you have personally regarded them very much as a possible reserve in the case of any sudden demand for war or other purposes; that part of your financial system had been rather to look to the possibility of making the salt tax a reserve. Such a policy, of course, rests entirely upon the possibility of fixing the permanent rate of the salt duty so low as to make it perfectly clear that in the event of being obliged to raise it, you would get a larger revenue. I think I gathered also from what passed that the effect of a reduction which was made during your administration had been to diminish the total amount of revenue on the salt duties?—Yes, that is to say, the consumption increased, but it did not naturally increase at once to the extent to make good the loss of revenue. It increased progressively year after year, and in the course of years it no doubt will rise to the figure it was at before the duty was lowered, but it has not done so yet.

7079. But does it not follow from that that the permanent rate at which the salt duty is at present fixed is not sufficiently low to make that source of revenue available as a reserve, because in the event of your being obliged suddenly to add to the rate, you could not increase your revenue?—If you raise the rate, say four annas a maund, now, you might diminish the consumption a little, but still the revenue would be a greater one than you get at present. To that extent it does constitute a reserve. I should be very sorry to see it done. It would diminish consumption, but still the practical result would be to increase the revenue. *A fortiori*, if you went back to the figure there was in my day, two rupees and eight annas a maund, you would get a considerable increase of revenue at the cost of a greater diminution in consumption. I ought to mention that the whole increase in the consumption of salt is not, I think, to be entirely attributed to the taking off of the duty, because, even before the duty was taken off, there was a normal rate of increase, due to the increase of population, so that there would have been a certain amount of increase anyhow.

7080. But is it not desirable, to make the salt tax a reserve, to fix it at a low rate?—Certainly. It would be very desirable to fix it at one rupee a maund instead of two; but there is no present prospect of getting it to that figure.

7081. One of the objects of Lord Northbrook was to reduce it to one rupee a maund. I do not mean to say that it was averred publicly, but that was the figure that was in our minds—the figure that was discussed?—Yes.

7082. I should be glad to have your opinion as to the effect on the population. There is a very strong opinion held by many people that the salt tax, unless it is kept within very narrow limits, operates very

injuriously upon the health of the population and upon agriculture. If that opinion is correct, it is a tax which it is very difficult and undesirable to look to as a source of increased revenue by increased rates?—There was certainly prior to 1882 a want of salt in some parts of India, Rajpootana particularly. But this very often depended on the distance of the place from the railway. The salt question should be considered in connexion with the improvement of communications throughout the country. I can only say that I should be very sorry to see the tax increased. It would be a very bad thing to do, but at the same time it is a thing that is possible within reasonable limits.

7083. What is your opinion as to the possibility of increasing the revenues of India by direct taxation? You are aware of the controversies, and the process of legislation with regard to the income tax. Is it your opinion that the principle of direct taxation can be safely carried further than it has been in India?—My view about the direct taxation question was this. There was a very long controversy, as you are no doubt aware, going on for years about direct and indirect taxation in India. When I had to deal with the question I came to the conclusion that, especially as the indirect taxes were to be abolished, it was absolutely necessary to impose some direct tax, and further that direct taxation in India can be justified by excellent reasons; because without any direct tax all the wealthy mercantile classes escape taxation. Therefore it was to be justified by the most thoroughly sound fiscal arguments. The only arguments against the tax were the political argument that it was unpopular with influential people, that we had endeavoured to impose a direct tax on India which was not quite suitable to the ideas of the country, and further that we had changed the tax over and over again, and had created great instability and great dislike to frequent changes. My view was that a direct tax of some sort, call it what you will, a license or income tax, should be incorporated into the fiscal system of India, but I was and still am very distinctly of opinion that a direct tax cannot be used in India as an engine for rectifying budget inequalities as it is in this country; that having been once established it must remain at a certain figure; and I am also of opinion that the direct tax should not extend too low down, because many of the arguments, very good and sound in their way, which were advanced against direct taxation were of this nature; that there were a number of poor people taxed, that the subordinate machinery for levying the tax was untrustworthy and open to corruption, and that if you went too low down you would have to deal with people who could not defend themselves against any illegal or unjust demand on the part of the tax gatherer. Whereas people in a better position and more wealthy would do so. The limit is now 500 rupees I think. That is certainly the lowest limit to which I would go, and indeed I should have preferred to fix the minimum limit a little higher, if I had had to do with it. It may be objectionable to do so on account of loss of revenue. I do not think, however, that you can go further in the direction of direct taxation; I mean I do not see any means of developing it. When I speak of development, I am of course aware that the revenue from the tax will gradually increase, probably with every year. I do not know if the assessments are made annually or not; but when the assessments are made, a certain number of people may be presumed to come under the operation of the tax who did not do so before. There may be some gradual increase, but it will be nothing at all to rely upon as any heroic remedy to put right such a state of things as we have now to consider.

7084. (*Sir L. Mallet.*) Is it your opinion that so far as the income tax is concerned, although there will be naturally a progressive increase, it cannot be looked to in any sense as a mode by which the Government of India could recoup itself for its loss on exchange?—Certainly not; most distinctly not.

7085. There is another branch of the question you

touched upon, the excise duties. You are aware, no doubt, of the controversy which I see at present going on as to the policy of the Government with regard to the sale of spirits. What is your opinion as to the possibility of pursuing the present course of policy with regard to the sale of spirits, without exciting undue unpopularity or without stimulating consumption unduly?—I am not quite aware whether there has been any change of policy since I left India, in that respect; but I do not think you can look on the revenue from spirits from a purely fiscal point of view. I think the principle generally laid down, namely, that the object to be attained is the minimum amount of consumption with the maximum amount of revenue, is fairly correct.

7086. I have only one more question to ask, which is, what has been the effect of the uncertainty attending the value of silver on the facility of obtaining capital for productive works in India?—As regards the influx of private capital for private undertakings, I really cannot give any facts, for I have not got them at my hand; but I cannot help thinking that it must rather have checked any tendency that there was to the influx of private capital into India. I think I am right in saying that it has depreciated the price of the silver debt, in fact it has *pro tanto* increased the indebtedness of India. It has also obliged the Indian Government to borrow at a higher rate than it did formerly, and the main fact of the whole question is that the Government of India and the taxpayers of India are obliged to pay as interest on the gold debt a very much larger sum than they did a few years ago.

7087. Was it not a fact, when you were financial member of the Government of India, that on one or two occasions it appeared possible that you would obtain the capital necessary for the construction of railroads without guarantee?—Yes; I was exceedingly anxious to get private enterprise to make the railways, for a variety of reasons which I need not go into now, because they must be sufficiently obvious. The endeavour was very generally thought to have failed. I do not altogether admit that. I think something in that direction was done. The Bengal and North-Western was made, if not without Government help, with a very small amount of Government help. But, afterwards, for one reason or another, nothing much was done in that direction. I am opposed to the system of guarantees. I think there should be State enterprise or private enterprise; I do not like the half-and-half system which is involved in giving a guarantee; but in answer to the original question put to me, I have no doubt that the instability in the value of the rupee acted as an important check against private enterprise taking up Indian railways.

7088. Are you aware that on the last occasion when we had to start railways, the Secretary of State was obliged to give a guarantee of four per cent.?—Yes, so I understand.

7089. (*Mr. Barbour.*) Are you aware whether the uncertainty as to the value of the rupee has more than once had an injurious influence upon the public works policy of the Government of India, as regards the construction of railways?—Undoubtedly it must have done so, because it has rendered it impossible from one year to another to know what the Government have to spend; it affected the public works expenditure and the whole budget. In fact, I look upon the Indian budget now as a mere matter of speculation; nobody can tell how it will turn up out at the end of the year.

7090. (*Mr. Birch.*) Do you not consider that the great fall in the exchange gave a great impetus in the development of India; that the rupee falling from 1s. 10d. to 1s. 5d., or whatever it is, assisted a great deal to help the export from India?—No doubt, if gold prices had fallen, and the rupee had remained at the same value as it was before, that amount of wheat which now goes home would not have gone home. There is no doubt about that, but

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I look upon the two things as necessarily going together. It is a debateable question whether the fall in exchange and the fall in prices are cause and effect. I look upon them as intimately connected.

7091. But then we bring a great deal of wheat from other countries. India only gives us about 10 per cent. of what we receive, and she has to come into competition with all other nations which send wheat to this country; that is an important consideration?—Yes; still admitting to the full, for the sake of argument, that the fall of exchange has benefited India by sending home a lot of wheat which would otherwise not have gone home, even then I say that the compensating disadvantages are so great as to more than counterbalance that benefit. In the first place there is the instability, which is a consideration of the greatest importance. There is no security whatever that the Government of India two or three years hence will not be bankrupt; none whatever in the present condition of affairs. Neither do I think it possible to separate completely the interests of the Government of India from those of the population of India. The first and greatest interest of the population, considered as a whole, is that the financial position of the Government, who are the trustees of the population, should be one of assured solvency.

7092. We have been told by all the witnesses that we have had up, that in the event of a ratio being established between silver and gold, the only one that can be established would be $15\frac{1}{2}$ to 1?—That is a very moot point.

7093. Well, in the event of that being the case, surely that would come with tremendous effect upon India, raising the value of the rupee. Now, we send a rupee to India for about 1s. 4d. or 1s. 5d., and then the rupee would cost 1s. 10½d.?—It is very difficult to foresee what the full effect of that would be. My answer to the question would be that, in the first place, the rise in exchange would cause a rise in gold prices which would go far to rectify the inequality, and thus tend to bring home the wheat all the same. That is the first thing that would happen; and in the next place, a further advantage gained would be that there would not be so much to pay for the gold debt, which would enable the Government of India to carry out fiscal reforms and benefit the population. They would be able to reduce the freights on railways, and give an advantage there. They would be able to take off the export duty on rice, and give the rice merchants and cultivators an advantage. I do not suppose the wisest man would foresee what the full effect would be. It would be perfectly impossible to tell, but it would be a great mistake to suppose that there are not counterbalancing advantages in the direction in which I am stating.

7094. In a despatch from the Government of India, dated the 2nd Feb. 1886, I find the following passage: "Notwithstanding the additional burden imposed on the Indian finances by the fall of a penny in the rupee, which occurred in the three years above referred to (1882–1885), the steady growth of the revenue more than covered the additional loss by exchange, and the estimates of 1885–6 showed that the actual position of the finances was thoroughly sound, and that there was a larger margin of reserve than there had been in 1882–3"?—If that is the case it must be mainly on account of good harvests and not on account of the fall in the value of the rupee.

7095. (*Mr. Barbour.*) Do you think that the benefit to a country from its export trade consists in the amount of produce or manufactures sent out of the country, or in what it receives in exchange for its exports? Is there any advantage in sending a large quantity of produce out of a country unless you get something equivalent in return?—Certainly not. The case is illustrated now in Egypt.

7096. If a fall of gold prices in this country made it necessary for India to export more produce in order to meet the gold obligations of the Secretary of State, that would increase the export trade

of India, inasmuch as an additional amount of produce would be required?—I think I agree in your line of argument, but let me put an illustration which, I think, is in the nature of what you mean. At this present moment the position of Egypt is that it has a gold debt, the interest of which is about 5,000,000*l.* a year, which it has to pay. It is an agricultural country, and it must pay in exports. The result is that Egypt has to produce a great deal more to pay that debt; it has to increase the volume of its exports without getting anything in return for them. There is no benefit to Egypt in this state of things. Egypt had to pay 5,000,000*l.* some time ago, which represented, say, a fixed quantity of pounds of cotton, and so on. Now it has to pay a great many more pounds of cotton and quarters of wheat in order to make up that 5,000,000*l.*, and I do not see that it gets any equivalent for it.

7097. (*Sir John Lubbock.*) Do you state that the interest is 5,000,000*l.*?—Yes; the sinking fund is now a very trifling figure, scarcely worth mentioning.

7098. (*Mr. Barbour.*) On the other hand, to the merchant every increase of the amount exported is an increase to his trade, and brings him additional profit?—It may be so, although it is to be remembered that low prices diminish his margin of profit.

7099. From his point of view an increase of the export trade, from whatever cause it may arise, would be a gain?—But the cultivator; I do not see that it affects him beneficially. The cultivator in Egypt has to pay a land tax in gold, and he has to sell more produce to get that land tax than he had four or five years ago; considerably more.

7100. (*Mr. Birch.*) But what you consider is that the gold prices have fallen on account of that?—That is another and very difficult question. I am aware that there are a great number of theoretical considerations which may be brought to bear on it. I find it, I confess, extremely difficult to believe that the disturbance in the value of the precious metals has not caused the fall in gold prices, and the point that has struck me more than anything else is a table prepared, I think, by Mr. Barbour. If you look at that table, which gives the prices for the last great many years, you will see they run in parallel lines with the relative values of gold and silver to such a remarkable degree, that, apart from any question of economic theory, it seems to me almost proved that there is a direct connection between the fall in gold prices and the disturbance in the relative value of gold and silver. That diagram went very far to convince me that the two were very intimately connected together.

7101. (*Mr. Chaplin.*) I gather, from what I have heard you say, that beyond all doubt the fall in the price of silver has seriously affected, and does seriously affect, the Indian revenue?—It affects the expenditure more; it affects Indian finance. If you use the word "revenue" in the sense of Indian finance, most certainly it does affect it. It raises the amount that India has to pay in the form of its gold debt.

7102. And another further fall in the price of silver, I think you said, you would regard as serious in the extreme?—Very, indeed. I can only say that if I were Finance Minister of India, and I found the rupee go to 1s.—and there is no guarantee that it will not go to 1s.—I should not have any idea whatever how the difficulty was to be met; and that is the point I want particularly to insist upon before this Commission. I have heard a great many people here say that the difficulty is one which the Indian authorities must get out of in the best way they can, but the practical thing that anybody who has to deal with the question has to consider is how they are to get out of it; and with a rupee much lower than it is now, I have no idea whatever how the Indian Government will be able to pay its way.

7103. The difficulty, at all events, you are quite clear, could not be met by increasing existing taxes or raising new ones?—Within reasonable limits it may be counteracted. The salt duty might be raised.

I do not say that you have got to the extreme limit of what is possible in the way of increasing the revenue; but still, if I bear in mind the fact that only a few years ago the rupee was 1s. 10½d., and that now it has gone down to 1s. 4½d., and I know no particular reason why it should stop there, then I think the situation is a most serious one.

7104. That is what I wanted to arrive at, that, assuming that there were a further considerable fall in the value of silver, then you would be unable to counteract it by any alteration of the existing taxes or raising new ones?—It depends, of course, on the amount of the fall. I quite agree with that as a general statement.

7105. What is your idea as to the probability of any further fall in the price of silver?—I wish I knew. That is beyond the range of my knowledge. I think it is extremely difficult for anybody to answer that question.

7106. But you are quite clear as to this, that if any considerable fall did occur it might create the greatest possible difficulties in India?—Yes. I am quite clear on that point.

7107. You have studied the bimetallic theory?—Yes, I did some few years ago.

7108. And do I understand, then, that you are in favour of its adoption as regards the interest of India?—That is going into a branch of the subject as to which I hardly anticipated that I was to be asked any questions, but as I have been asked the question I have no objection to stating very briefly what my view is, although I am anxious to say that the subject is so very intricate and complicated that I do not know that I should at present be prepared to submit to cross-examination on it. I went into the whole of this question some years ago with certainly a prejudice in favour of monometallism, and an idea that bimetalism was a currency fad and nothing more. After giving a very long time to the consideration of the question, I came to the conclusion that the monometallic argument that gold and silver are merchandise, like wheat and beans, of which the relative values cannot be regulated by Government, is wholly untenable. I think the bimetallic theory is a perfectly sound economic theory. I considered it essential to form an opinion on the theory; because if I had found that the bimetallic theory was unsound as I consider protection to be unsound, I should have cast it aside directly. I maintain, however, that the bimetallic theory is perfectly sound from an economic point of view. As regards giving practical effect to it, I am aware that it is extremely difficult. But, generally speaking, I may say that I am a bimetalist. In the interests of India I should be very glad to see any measure adopted which would give stability to the rupee, and I think that the matter is one which requires the most attention from the Government and Parliament of this country.

7109. I think you admitted that the fall in silver has to some extent been advantageous to producers in India?—Yes, I think it has. It has sent home more produce than otherwise would have been sent.

7110. But it does not in any way compensate for the general mischief?—I think certainly not.

7111. Well now what is the effect on the producer at home, we will say of wheat?—That depends rather upon whether you consider that the fall of prices is due to the disturbance in the relative values of gold and silver. I maintain that it is, and if so it has enabled the Indian producer to compete favourably with the cultivator here.

7112. You entertain the same opinion which has been advanced by great numbers of witnesses here that the effect of the present system is to give the Indian producer of wheat an artificial advantage over the producer of wheat in England?—An advantage certainly, but I do not know that I should call anything artificial that comes from the natural operations of trade.

7113. Now is the producer in Egypt affected in the same way?—The producer and the Government of

Egypt are affected in this way. If it is contended that the fall in the value of the precious metals has nothing to do with the fall of gold prices, then I think the effect on Egypt has been very trifling, but if it be held, as I hold, that the two may be considered as cause and effect, then it has affected Egypt in this way, that the cultivator has to pay more produce for his land tax, which is fixed in gold. The Government also is very greatly affected because it is the largest proprietor in the country. It owns 800,000 acres of Domains and Daira land. It sells its produce at a lower price than it did some years ago, and therefore it has to produce a larger quantity in order to pay the interest on its debt. The result is that the Domains and Daira deficits, which have to be made good out of its general revenues, instead of mounting as they would have done a few years ago to 50,000*l.* or 100,000*l.*, now amount to 350,000 or 400,000*l.*

7114. You trace the fall in the price of silver a great deal to the demonetization by Germany and the other countries in Europe?—Yes, certainly more, I think, than to the increased production of silver in America, but I am not at present well up in this branch of the subject.

7115. (*Sir T. Farrer.*) I think you said you did not come here prepared to enter upon the difficult theoretical questions which are connected with the bimetallic theory, such as the appreciation of gold, the effect upon exchange, &c.? If you did not, I shall not think it needful to ask you any further questions upon these subjects?—No. I have gone into those questions very attentively, but it is several years ago now, and if I am to be cross-examined on them I should like to study them more, which I have not the time to do now.

7116. (*Mr. Fremantle.*) Can you say whether any estimate has been made of the loss to private persons in India, that is to say, officers who have to send money home, in consequence of the great fall of the price of the rupee?—No, I should think that such an estimate was very difficult to frame.

7117. But it would represent a large sum?—To the individual officers a very large sum, no doubt.

7118. Are all the covenanted and uncovenanted officers paid in rupees?—You are talking of pay. Yes. In India there is no pay in sterling at all.

7119. But then in the military establishments are they paid in silver?—They are paid in rupees, and the soldiers get the rupee at a fixed rate. I do not know what it is now.

7120. But the civil officers and the military officers are paid upon different systems?—The civil officer gets his pay in rupees, so many rupees a month, and the military officer also gets his pay in rupees at so much a month, but the soldier used to get an amount which was fixed at a certain rate of exchange. It varied from time to time, if not every year, at all events from time to time.

7121. The officers pay is originally fixed in sterling, is it not?—No, it is in rupees in India.

7122. Then how is it decided how many rupees he is to receive?—It is so many rupees per annum. A lieutenant has so much, a captain so much, a major so much, and so on.

7123. The mere fact of his landing in India alters his payment from sterling to rupees?—Yes.

7124. (*Sir John Lubbock.*) Under the circumstances I will only ask you a very few questions, but I should like to obtain your views with reference to some of the difficulties which have been suggested with reference to bimetalism. You expressed an opinion, I think, that the value of gold and silver was regulated by different laws from those which determined the values of other commodities, and that therefore, we cannot consider gold and silver altogether in the same manner as we should deal with other commodities?—Yes. When I speak of gold and silver, I mean, of course, gold and silver legal tender money.

7125. Well, in the case of gold and silver however, there is a very large consumption in the arts and for

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other purposes than coinage, is there not?—Yes. Of course very large is a relative term. As compared with the use of money for currency purposes the amount used for the arts is small.

7126. Are you prepared to state what the proportion is?—No, that I cannot tell.

7127. (*Mr. Barbour.*) Do you mean that the amount withdrawn in any year for the use of the arts is small in proportion with the amount that is actually circulating?—I mean that the amount of gold and silver in the world used for the arts is very small as compared with the amount used for currency purposes. My recollection is that there is something like 700,000,000*l.* used for currency purposes.

7128. You do not mean that the total amount that is hoarded, or that has been used in the arts in past years is not large, but you mean that the amount withdrawn in any year for the arts is small compared with the amount used for currency purposes?—I should imagine that both are true, that the amount of gold cups, and so on, is small compared with the total amount of the currency, and as to the annual production, the larger proportion goes to currency purposes and not to the arts. Though I do not know the figures, I imagine that is the case.

7129. (*Sir John Lubbock.*) When you said just now that the proportion used in the arts was very small in proportion to the currency, you do not mean that it is very small in proportion to the amount annually used for coinage, do you?—I really forget what the figures are, but I conceive that of the total annual production of gold by far the greater part is used for currency purposes, leaving only a small proportion for the arts.

7130. But you are not aware what the proportion is?—No, at this moment I cannot say.

7131. And if the amount used in the arts is larger than that which is used in currency, then you would admit, would you not, that the value must be largely determined by the use in the arts?—If the amount was larger for the arts than for currency purposes, that would be a very important argument, but at present it is far smaller.

7132. Supposing it was as large or even larger, say one-third, would not that be a very important element to take into consideration?—It would be an element, certainly.

7133. Now, supposing bimetallism were adopted, at what ratio would you propose that the two metals should be taken?—I am not prepared to give a definite answer to that point, for I think it is the most difficult question connected with this branch of the subject. I do not think, so far as I know, that it would be possible to go suddenly to the 1 to 15½ ratio. It would be such an enormous disturbance in all monetary transactions; but I cannot help thinking that there might be some means of arriving at it gradually. That, however, is the particular point which, supposing the theory were held to be sound, requires very careful examination, and upon which I should not certainly be prepared to give any opinion myself, without going through the process which the Commission is going through now, that is to say, hearing witnesses, and so on. It is by far the most difficult point connected with the whole question.

7134. It has been suggested to us that the ratio of 15½ to 1 should be adopted. Would you not think that there would be a great injustice to many interests in India if that ratio were adopted, and the great alteration in the value of silver which it would entail was suddenly produced? At present the rupee is worth 1*s.* 4½*d.* or 1*s.* 5*d.* To adopt the ratio of 15½ to 1 would increase the value of the rupee to 1*s.* 10½*d.*, and all those who had undertaken to pay amounts of rupees when the rupee was 1*s.* 5½*d.*, would suddenly find themselves compelled by legislative enactment to pay the same number of rupees when the rupee was 1*s.* 10½*d.*?—The counter case is that of a man or a Government which has engaged to receive rupees which were worth 1*s.* 10½*d.* at the time of the engagement, and which are now worth only 1*s.* 4½*d.*

7135. In the first place that has been a very gradual process?—I should be prepared to admit that to go by a sudden jump to the 1 to 15½ ratio is open to very strong objections, but that is a point upon which I must decline to give any definite opinion, because if I were to give any opinion about it, I should like to go thoroughly into the question, examine witnesses, and go through, in fact, the same process as the Commission is now going through.

7136. And the fall in the value of the rupee has not been due to any legislative action on the part of the Indian Government?—None whatever.

7137. And the rise in the rupee would be due to legislative action. Would you not consider that that would make a very great difference between the two cases?—I do not see that that makes any great difference, provided the legislation were conceived in a just and careful spirit.

7138. I suppose you would agree, would you not, that if the proportion of 15½ to 1 were adopted, it would give a great stimulus to silver mining?—Yes, I presume it would. It would increase the production of silver.

7139. And do you not think that it is possible that it might increase the production of silver so much, that in effect the result would be in a few years to drive gold out of circulation?—Where is it to go?

7140. Into the arts?—I do not believe in that. The arts could not absorb all that amount of gold.

7141. At any rate it would become a much smaller proportion of the total amount of circulating medium than it is at present?—Possibly.

7142. Is it not clear that the effect of adopting such a ratio would be to discourage gold mining and encourage silver mining?—I do not think it would discourage gold mining; I do not see why it should do that.

7143. But at any rate you think it would encourage silver mining?—Yes, I think it would.

7144. Well, would not the result of that be that practically the currency of the world would be mainly silver, with a continually decreasing amount of gold?—Under my hypothesis, if gold mining is not discouraged, the amount of gold would not decrease.

7145. If you increase the quantity of silver and do not affect the quantity of gold, then, practically, the proportion of gold to silver must continually decrease?—Yes, certainly; I imagine there would be more silver in proportion to gold than there is at present; that I should fully admit.

7146. Then the circulation on the hypothesis would consist partly of gold and partly of silver, but with a continually increasing proportion of silver, so that it would be determined practically by the value of silver?—I do not quite follow you.

7147. The theory of bimetallism is that the debtor should be allowed to pay in whichever metal he chooses, and therefore of course, if silver is the cheaper metal, he would choose that?—I do not admit that it would be the cheaper metal.

7148. If the production of silver is continually increasing, the silver must become more cheap, and the debtor having the option in which to pay would select it?—No; my contention would be that silver would always remain at the same price; it would get to the price determined by the ratio. At the ratio of 15½ to 1 it would get to 60*d.* an ounce.

7149. Directly you make silver legal tender, there is no question as to price of silver, because it would be its own price. If you went at once to 1 to 15½ there would be a large stimulus given to the production of silver for the moment?—More silver would be produced, there is no doubt about that, and that is all.

7150. Whether you go at once, or whether you go gradually, the effect of such a law would be to give a stimulus to silver mining; I think you admitted that that would be the case?—Yes, I do admit that.

7151. Then if you give that stimulus to silver mining, and if silver becomes continually a larger

proportion of the stock of the precious metals used for coinage, and if you allow the debtors to pay at their option in either the one or the other, of course they would adopt the cheaper metal, and would not the effect be that the currency would be continually decreasing in value?—To answer that question fully would lead to a very long controversy. I do not see how silver would be the cheaper of the two metals, because the relative value of the metals would be determined by the fixed ratio.

7152. Of course less gold would be produced?—There would be more silver in the world than there is at present, but gold and silver would also be at the same ratio, the same relative price; that is the bimetallists' contention.

7153. Silver would be at the same ratio in proportion to gold, but silver would not always be in the same ratio in proportion to other commodities. What I was endeavouring to elicit your opinion upon was, whether practically the value of the currency would not be regulated in such a case by the value of the silver. Assume, for the sake of argument, that after bimetallism was introduced silver could be produced in great quantities at the rate, we will say, of 35*d.* Then, would not that practically regulate the price of commodities; would you not practically in that case have, to all intents and purposes, a silver circulation?—No, because you will always have an enormous amount of gold, which will have to be used, and I think would not be used in the arts. At present you have more silver than you have gold. My contention is that at the present moment you have got bimetallism in its worst form. You have unrated bimetallism. If we had bimetallism in the sense in which I speak of it, you would have rated bimetallism. At present you are using gold and silver. If you had an amalgam of the two metals, every single coin, made partly of gold and partly of silver—

7154. The gold would follow the value of the gold and silver, I quite agree; but I am now speaking of the relation between silver and commodities. I ask you to drop gold out of your mind for the moment. I ask whether silver being a legal tender, and if you assume that silver can be produced in unlimited quantities at 35*d.* an ounce, would not the silver used be the element of the currency which would regulate the price of commodities?—If all prices were regulated in silver only, and silver could be produced in unlimited quantities at 35*d.* an ounce, there would certainly be a rise in the prices of commodities, but bimetallists contend that silver and gold rates would go together naturally, and they also contend that a fall of gold prices has been an incidental effect of the recent disturbance in the relative values of the precious metals. I should like, by the way, to qualify my evidence on one point. I have never thought that this question of the rise or fall of prices was the most important part of the whole business. I do not think it is in the least the business of the Government to step in and regulate prices. I think gold prices have fallen by reason of the changes in value of the precious metals; but if that was the only consideration, I do not think it is the affair of the Government to step in and endeavour to regulate it. Where the Government has the right to step in is to regulate the stability of the two metals, because now silver fails to fulfil one of the leading functions of a standard of value, which is stability; more especially is it the business of the English Government to step in because the present instability very seriously affects the well-being of India.

7155. What I understand you to wish is that the value of silver should be stable. Then the point to which I was directing your attention was that the practical effect of the adoption of a ratio of silver of 1 to 15½ would be to stimulate the production of silver, and that silver would be the metal which would regulate prices?—I have never said the ratio should be 1 to 15½. I declined answering that question because I said that it was an extremely

difficult one, but I may say that I think there is a great deal to be said in favour of another ratio, say 1 to 18. The present ratio is 1 to 21, or something of that sort. I have never given any opinion about its being 1 to 15½. I think that is an extremely difficult question, upon which I should very much hesitate to give an opinion.

7156. Several witnesses have expressed the opinion that that is the only ratio which is practically possible?—I am aware that is the case. But it would be impossible to adopt it at once because it would create such an enormous disturbance in all monetary transactions.

7157. That I quite understood. I am passing on to endeavour to ascertain your opinion assuming that we adopted it gradually. I think we got to this point that practically the silver would be the dominating element in the currency, that therefore if the silver could be produced at half its present cost of production, practically prices must be modified accordingly?—I think the argument, as you state it, is an argument, not against bimetallism, but against the 1 to 15½ ratio, but before I give a definite opinion in regard to that I should like to hear the whole case a great deal more.

7158. But assuming that was the case, that the ratio of 1 to 15½ was adopted, then practically prices would be regulated by the cost of the production of silver, would they not?—And of gold too, because they would always be at the same stable ratio.

7159. Yes, but you expressed the opinion already that gold would not be affected, that there would be no reason to suppose that more or less gold would be produced than there is at present, but on the other hand silver would be largely affected, and a great stimulus would be given to the production of silver. Under these circumstances would not prices be regulated by the cost of the production of silver?—I really must decline to answer such a question as that more fully than I have already done without giving further thought to it.

7160. (*Mr. Barbour.*) Do you think that the stimulus to the production of silver might cause the existing silver mines to be worked out sooner than would otherwise be the case?—Of course no one can tell how much silver is in them.

7161. It is just possible that the production of silver might fall off after a time notwithstanding the increase in relative value, if the mines should happen to become exhausted?—Exactly so; nobody can tell how much silver there is, or how much gold there is for that matter.

7162. (*Mr. Chaplin.*) When bimetallism prevailed on the continent before, was the production of the silver mines ever stimulated so as to drive gold out of circulation?—That is a matter of statistics. I believe that was not at all the case, but then it must be admitted that there have been, I believe, a great many silver mines discovered since that date.

7163. But there is nothing, so far as you are aware, in the experience of the past to lead to the expectation that a return to bimetallism would have that effect in the future?—No, I should say certainly not, because I maintain that bimetallism did succeed up to the time that the French abandoned it.

7164. (*Sir John Lubbock.*) You expressed the opinion, did you not, that bimetallism would fix the value of silver. You did not mean of course in relation to gold?—I said that bimetallism would keep the relative value of gold and silver legal tender money nearly constant.

7165. And you do not think that the fact of there being such a large consumption in the arts would make it difficult to retain them both in circulation at a fixed ratio?—I should say certainly not, because I think the amount in the arts, though I have not the figures by me, must be considerably less than what is used for currency purposes.

7166. You found that upon the assumption that the consumption in the arts is much less than the consumption in coinage?—Yes.

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7167. Well, then you expressed the opinion that the fall in the value of the rupee gave a great stimulus to the production of wheat in India. Several of the witnesses who have been examined on that point have considered that it did give the Indian producer an advantage, because his fixed charges, that is to say, mainly taxes and labour, became less, and therefore that as his fixed charges, which formed so very large an element in the production, are diminished, he can really produce at a smaller price. That, no doubt, gives him an advantage. Do you consider that that is the only advantage that he has, or the main advantage, or do you consider that the fall in the rupee gives him any other advantage in the production of wheat?—It has given him this advantage, because prices in India have not yet gone up, as Bagelot and other economists imagined they would do. In course of time, if there is anything in economic science, prices ought to go up, and then the Indian cultivator would no longer have this advantage; but it takes a very long time for an economic law to operate over so large a continent. Prices have not gone up, and until they do so the Indian cultivator has a considerable advantage.

7168. All changes in India are very slow?—Very slow.

7169. But you would regard those advantages as temporary, and not permanent?—I should think so.

That is matter of theory. I have always regarded the rise of prices in India as a matter of time.

7170. (*Mr. Chaplin.*) When you say “matter of time” you mean a long time?—A long time.

7171. (*Mr. Barbour.*) If a fall of gold prices occurs corresponding to a fall in exchange is there any reason why silver prices should rise? The exchange having altered, a corresponding adjustment in gold and silver prices must follow. That adjustment may take place, either through the gold price falling or the silver price rising. If, as matter of fact, gold prices have fallen sufficiently to balance the fall in exchange, is there any reason the silver prices should rise?—No; put in the way you have put it, there is not.

7172. (*Sir John Lubbock.*) You have based your arguments in favour of bimetallism mainly on the advantages which, in your opinion, would result to India. I do not know whether you did go into that question at all, but how do you think that should be effected in England?—Of course I have given most attention to the subject in connexion with India. I may say that I do not think it would do any harm here; but I am not prepared to go very fully into that branch of the subject.

7173. (*Sir T. Farrer.*) In what you have been saying you assume that India joined the bimetallic league?—Yes.

The witness withdrew.

Adjourned till Monday.

Thirtieth Day.

Monday, 18th July 1887.

PRESENT:

THE RIGHT HON. LORD HERSCHELL, the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.
 MR. J. W. BIRCH.
 MR. HENRY CHAPLIN, M.P.
 MR. L. COURTNEY, M.P.

SIR T. H. FARRER, Bart.
 MR. C. W. FREMANTLE, C.B.
 SIR JOHN LUBBOCK, Bart., M.P.
 SIR LOUIS MALLET, C.B.

MR. GEO. H. MURRAY, *Secretary.*

Mr. H. D.
Macleod.
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Mr. H. D. MACLEOD called and examined.

7174. (*The Chairman.*) You are a barrister-at-law?—Yes, my lord.

7175. And you have given great attention to the subject of banking, and credit, and the economic questions connected with the currency?—I have.

7176. And you have prepared the paper which has been put before us to express your views with reference to the elements to be taken into account in investigating the relation between the standard of value and prices?—I have.

7177. I understand that the conclusion at which you arrive is that the measure of value does not consist merely in the amount of the precious metal, which is called the standard of value, but also in all forms of credit?—Credit in all its forms has exactly the same influence on prices and production as an

equal amount of bullion, and I say that the phrase standard of value is entirely misleading. There is no such thing as standard of value, it is contrary to the nature of things. A standard of value, and a measure of value proceed upon totally different foundations of the nature of value.

7178. Those differences you have developed in the paper which we have before us?—To a certain extent. Of course I was confined within moderate limits in answering this question, but I placed a work of mine in your hands, which, as a lawyer, I would ask you to look at where the thing is quite developed. Of course the question that arises here is one of the most stupendous questions that can be asked of anyone. You might write a volume upon it. I was obliged to confine myself within as moderate limits as I could in answering the question.

7179. Then as the result of your study of that subject, do you think that there is a direct relation between the diminution or increase of the amount of the precious metal by which values are measured, and prices?—That depends to a great extent upon the organisation of credit. Credit is so enormously greater than the quantity of bullion, that all the most profound mathematicians in the world could not tell the relation between the two, and besides the system of credit is organised in such different ways. For instance, I have given a very cursory notice here of the banking system of Scotland. The banking system of Scotland is peculiar to itself, and that has the most powerful influence on the subject, because 17. notes there almost entirely supersede the use of sovereigns; in fact I may say that in my younger days I am confident that not one person in three in Scotland ever saw a sovereign in their lives.

7180. I understand your view to be that the more highly organised the system of credit the less effect will be produced by variations in the quantity of the precious metal by which values are measured?—Most assuredly, because the more you develop the system of banking the more transactions are settled by the transfers of credit, and not by bullion at all. If you have a very low system of banking, then you require a very considerable amount of bullion, but the larger a bank is the more the chances are that the customers of the bank deal amongst themselves, and their transactions are settled by mere transfers of credit by the bank, and the more organised the system of banking is the greater the amount of transactions which are managed simply by transfers of credit; by the clearing system, for instance. So that the better organised and the more extensive the system of banking is the less bullion you require to carry on commerce. In fact, money is never used in commerce now, except to pay balances of debts. All commerce is now carried on by the creation, the transfer, and the extinction or obligations.

7181. Do you see any evidence of this country suffering from what has been called a scarcity of gold?—I cannot perceive the slightest evidence of it, because this country can always command gold.

7182. Supposing that there was any great diminution in the supply of gold, so as to create what has been called a scarcity, how would you expect that to show itself?—I think that would be a very difficult question to answer. I think this country could always command a supply of gold.

7183. Why do you think so?—This is the leading commercial country in the world, and gold naturally flows to this country, beyond any other in the whole world, I think.

7184. As a kind of commercial and financial centre?—Yes. Besides, you can always attract gold by the rate of discount.

7185. Take some other country, suppose not our own country, as a financial and commercial centre, how would the scarcity of gold, if gold were the standard, show itself. I mean by diminished reserves in the banks, or in what other way?—I presume that it would, but that is a very difficult question to answer off hand.

7186. I understand you to say that the effect produced by the diminished supply of gold, supposing that to be the standard in any country, would depend on the extent of the organisation of a system of credit in the country?—Most assuredly; why the whole commerce of Scotland, the whole agriculture, every public work in Scotland, is conducted entirely by 17. notes; it is not by gold at all; gold is scarcely ever used in Scotland.

7187. I do not know if you can tell us whether there has been within the last 15 years any increase in the organisation of credit?—Of course the system of banking has vastly increased in England, and I believe that it has in France and in Italy also, and certainly throughout Europe the system of banking has been very much developed. In this

country the development of banking has been something enormous. I saw a statement in the papers the other day, that in deposits alone, which are banking credits, and not cash, as many people suppose—a deposit is a credit in the bank—that in the city of London alone the deposits in the banks amount to 525,000,000*l.* I will take the case of Scotland as another instance. On a reserve of very little more than 4,000,000*l.* the banking liabilities of all classes in Scotland are about 100,000,000*l.* Those 100,000,000*l.* of credit in Scotland produce exactly the same effect as an equal amount of gold on prices, and the more banking habits are cultivated among the people the more the system of banking grows. Of course banking has increased enormously in this country.

7188. (*Sir L. Mallet.*) But it is a question of time. Has there been any great increase of credit for the last 15 years; is the proportion of credit to bullion greater now than it was 15 years ago?—Very much greater; the proportion of credit is very much greater. Look at the progress of the joint stock banks.

7189. (*Mr. Barbour.*) Is the amount of business done also very much greater than it was 15 years ago?—Of course it is.

7190. (*The Chairman.*) But in your view, would the amount of business done affect the question of the relation of the precious metal to the transactions, if the transactions were managed by means of banking arrangements?—No. If all commercial debts were equal you might carry on any amount of business without the use of a single coin. France is a very striking example of that which I mention. You ask the relation of a standard of value to prices; by the standard of value, I suppose you mean money. Very well, then, I will give you an example. Before the foreign bankers used to discount bills of exchange, foreign merchants used to make their bills not payable at their own houses, where they would require cash to meet them, but there were certain fairs on the Continent, at Lyons, Antwerp, Brussels, and Nuremberg, and the foreign merchants used to make their bills payable only at these fairs. On a certain day at the fair they had a meeting. Of course their acceptances circulated throughout the whole country, and they performed the part of money. They used to meet, and they then interchanged their acceptances one against the other by the principle of compensation. Boisguillebert, who is one of the most celebrated of the early French economists, said that there was a commerce of 80,000,000, I suppose that he means livres, which was settled without the use of a single coin; therefore, if all commercial debts were equal you might carry on any amount of commerce without the use of a single coin, because commerce is carried on by the principle of compensation, and money is only used now to pay the balance that arises from commercial debts. Money is now used only in small retail transactions. Look at the system of the Clearing House. That is a system by which banking credits are transferred from one bank to another, precisely as credits are transferred in the same bank from one account to another. Upon the average there are about 6,000,000,000*l.* of banking credits transferred in the London Clearing House alone, let alone the country Clearing House, and other Clearing Houses in the principal towns of England and Scotland. Now I will give you an example how commerce is carried on by credit without a single coin. When in the Revolutionary War, the Bank of England suspended cash payments; that never extended to Scotland. The Scotch bankers met, and they came to a resolution that they would not pay their notes in gold at all. They never paid their notes, and during the whole of the Revolutionary War, the whole of the commerce of Scotland was carried on entirely by Scotch bank notes, and during the whole of that time, though they were liable to an action for not paying their notes, there was not a single action brought against a Scotch

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back for not paying their notes. Therefore the whole commerce of Scotland was carried on for 20 years without a single sovereign.

7191. (*Sir T. Farrer.*) And the people accepted it?—They accepted it; there was not a single case of an action brought against a Scotch Bank for not paying their notes.

7192. (*Mr. Barbour.*) I think you said that credit in all its forms has exactly the same effect on prices as an equal amount of money?—Certainly, that you will find in any book on political economy.

7193. And the amount of credit in this country is very much greater than the amount of gold. I see you put it down, taking a rough figure, at 6,000,000,000*l.* of credit and 100,000,000*l.* of gold?—Of course it is impossible to state the exact amount, but Mr. Slater, of Messrs. Morrison, Dillon, and Co., made an abstract, and laid it before the House of Commons. You will find it in the Parliamentary report. I have got the amount here, and it shows that only about 2 per cent. of transactions were settled in money, and the remaining 98 per cent. by credits of various forms. That was his opinion. Of course, that is only a very rough estimate; you can estimate it at something of that kind by that scheme. In Scotland we have a perfect account of the statistics of all the Scotch banks, therefore we know how much coin there is in them and their liabilities, but most unfortunately there is nothing of the kind relating to the English banks. That would have a very great bearing on this Commission if you could obtain a complete statistical account of all the English banks, the same as you have of the Scotch banks. In Oliver and Boyds' Almanack, where the statistics are published, you will find that they have just 4,000,000*l.* of gold in reserve, and that they have liabilities of about 100,000,000*l.*

7194. I suppose if that 6,000,000,000*l.*, which we may take as the amount of credit in England, were reduced by 120,000,000*l.*, it would make very little difference in prices?—Credit is created by mercantile transactions. If you multiply mercantile transactions you multiply the amount of credit.

7195. But the fall in prices to balance a reduction of that amount in credit would be very little?—I should say extremely little.

7196. But do you think the result would be the same if 120,000,000*l.* of gold disappeared from England?—Of course you require a certain amount of gold to keep up credit here. I do not know what the amount of gold in England is.

7197. There would be an immense failure of credit?—The currency of the country would be reduced to so many bits of paper.

7198. And therefore the withdrawal of 120,000,000*l.* of gold would have a much greater effect on prices than a reduction of credit by 120,000,000*l.*?—It is not possible to conceive that 120,000,000*l.* of gold should be drawn from the gold of the country.

7199. But supposing it were, for the sake of argument?—Then the whole system of commerce would collapse.

7200. Have you considered what happens if inconvertible paper is issued. If it is over issued is there not immediately a rise in prices?—Of course there is.

7201. Though the amount of inconvertible paper issued may bear a very small proportion to the credit in the country?—Well, yes, to a certain extent.

7202. You say there is 6,000,000,000*l.* of credit in this country; suppose there was 6,000,000,000*l.* of gold too, would not prices rise enormously?—Not if the gold were merely substituted for the credit, because credit is only a substitute for gold. Money and credit are the circulating medium, and the same effect would be produced by an equal addition to credit.

7203. But suppose credit was as much used as it is at present, and in addition that there was 6,000,000,000*l.* of gold brought into this country,

would not prices rise enormously?—Yes, most enormously; of course they would.

7204. They would more than double, would they not?—I think it is scarcely conceivable what they would rise to.

7205. Therefore 6,000,000,000*l.* of gold would have a greater influence on prices than 6,000,000,000*l.* of credit?—No, the one is a substitute for the other. If you add the one to the other it would no doubt make a difference.

7206. So far as credit takes the place of gold, gold may be withdrawn with impunity?—Yes, because credit is purchasing power over and above gold. If a man buys with credit, that produces exactly the same effect on prices as if he buys with gold.

7207. You know, of course, that there has been a great alteration in the relative value of gold and silver in recent years?—I am aware of that as a fact.

7208. And gold and silver prices would vary in accordance with that alteration in the value of gold and silver, would they not?—I presume so.

7209. Well, do you suppose that the rise in silver prices and the fall in gold prices is due to credit or to anything connected with the two metals?—I think the fall in prices throughout the world is very much due to the state of credit, much more than has ever been appreciated.

7210. That it is a contraction of credit in the gold countries?—It is, most undoubtedly.

7211. And do you consider that owing to there being no contraction of credit in the silver countries, the silver countries being countries that do not use credit very largely, prices remain practically the same?—No, prices in the country are estimated by the amount of money and credit together, and unless you thoroughly investigate the system of credit you cannot understand the theory of prices. Now, for instance, take France; you may recollect that 40 or 50 years ago, in 1839, all prices were in silver five-franc pieces. Very well, but then the prices in France were a great deal lower than they were in England in 1839. And what was the reason of that? The reason of that was that the whole currency of France consisted of nothing but silver pieces, with a very small amount of credit, while the currency of this country consisted of money and an extremely large amount of credit.

7212. The evidence we have had, I think, has been rather to the effect that there has been a great extension of credit during recent years. I understand you would agree with that?—In this country the development of credit has been something enormous.

7213. Then why have gold prices fallen. If the fall of gold prices is due to a contraction of credit, how is that consistent with the great extension of credit?—For this reason, that there has been comparatively extremely little speculation of recent years. It is speculation which gives rise to this gigantic increase of credit. In times of speculation bills of exchange are multiplied, and then those bills of exchange are discounted by bankers, and that gives rise to the extension of banking credits, and that gives rise to an enormous multiplication of credit. Now you will observe that the great fall in prices has been since the year 1873. That was the year of great speculation, and speculation has collapsed almost since the year 1873. There has been no speculation in any country whatever. In times of speculation credits are increased and multiplied. Then the system may increase from the general commerce of the country without speculation.

7214. But was there not a great fall of prices in 1877?—I am only speaking offhand, but I imagine that the great decadence in prices arose after the collapse of speculation about 1873, and there has been a very general fall throughout the world since that time. The fact is, you, as acquainted with mercantile affairs, know perfectly well that the depression of prices since 1873 has been something without a parallel.

It has always been observed in previous times that every great depression of prices gives rise to speculations, and those speculations produce those mercantile crises. Now before 1825 there was a great depression of prices, and people began to speculate then, but ever since the year 1873 speculation seems to be perfectly dead in every country, and people, as I say, seem to live from hand to mouth.

7215. Can you assign any special cause for that falling off in speculation since 1873?—I suppose people cannot discover things to speculate in. You will observe that in all times of previous speculation prices rose immediately to an enormous extent; after those great mercantile collapses you will find that prices fell to an enormous extent, and the reason was because so many people were ruined. They could not create bills of exchange, so there were no bills to go to the banks to be discounted. It is always observed that after a commercial crisis the deposits in banks fell off immensely. That is simply because the banks have not got mercantile bills to discount.

7216. Is there anything in the returns of the banks of the present day to show that there has been a great falling off in the amount of credit?—The system of banking has certainly not been increasing so fast as it did in previous years. You find that all the banks are complaining of want of business.

7217. (*Mr. Birch.*) You state in this paper that we have got before us that bank notes, bills of exchange and banking credits payable in gold, have exactly the same effect as an equal amount of gold. That is, so long as you are certain that those documents will be payable in gold, but in the event of there being a large export of gold, and a scarcity of gold, then of course they would vary?—If there was a large export of gold from this country that would come upon the rate of discount.

7218. Then you think that raising the rate of discount would always attract gold?—Yes, I think we may lay that down pretty certainly, because all banks in the world now are managed by the rate of discount. If there is an export of gold from this country, you immediately raise the rate of discount, and if you want to attract gold to this country, if the state of the market allows it, you raise the rate of discount. You know a lower rate of discount between this country and any other will produce an export of gold from this country, because, if the rate of discount is very low in this country, foreign merchants send over their bills to this country to be discounted. And besides, if there is a difference between the rate of discount in London and Paris, we will say more than sufficient to pay expenses, I daresay you know perfectly well that the bullion merchants fabricate bills for the express purpose of exporting gold.

7219. I was only thinking specially of the volume of the currency which of course would be diminished by the export of gold?—Yes, to a very slight extent.

7220. With regard to prices, a period of prosperity leads to enlarged production, and the expansion of any branch of industry stimulates others?—Yes.

7221. You attribute the fall of prices largely to the increase of production, do you not?—Of course, there are special reasons affecting every article of product, but I attribute the general depression throughout the world to the absence of speculation.

7222. The bimetallists generally assert that the present depression of prices is mainly the consequence of a scarcity and appreciation of gold; that gold is now appreciated owing to its supply being inadequate for its purposes. You do not agree with that?—The absolute effects, I venture to hold, of a minute increase of gold, or a diminution of it are so extremely intricate that it is impossible to say what they are.

7223. And they also assert that to create a new standard of value, combining gold and silver in a permanently fixed ratio to one another, would enlarge the mass of the measure of value and relieve prices from the disturbing influences to which they are now

subject. You do not agree with that?—Ah, that is too profound a question to go into off-hand.

7224. (*Mr. Chaplin.*) You say in your paper that the quantity of money in any country bears no necessary relation to the quantity of other goods in it, nor to their prices?—I do.

7225. Would you make the same statement with reference to the money and the goods in the whole world?—In a certain way, because the quantity of money required depends so very much on the methods on which business is transacted.

7226. Then it would make no difference, you say, to the prices?—I say it might or it might not. I say that there is no absolutely necessary relation.

7227. But then it might have a relation to the prices of goods in a certain country?—It might have. I said no necessary relation.

7228. Well, supposing you suddenly took away a very large proportion of the gold in any particular country, you think then it probably would have an effect upon the prices?—That would upset the banking system, because the banking system is carried on by the basis of gold. If you were to withdraw, for instance, from the Bank of England 11,000,000*l.*, quite suddenly of gold, why that would upset the whole banking system of the country.

7229. And consequently would affect prices?—Of course it would, because it affects the rate of discount, and the rate of discount has one of the most powerful effects on prices.

7230. And supposing that silver was legal money as well as gold and you withdrew a large portion of the mass of the metals, that would equally affect prices?—If silver were a legal tender equally with gold of course it would, because the whole credit system of the country is based on the supposition that it is payable in gold, and you must have a certain amount of bullion to maintain the credit system of the country, but then there is no fixed quantity which is necessary. That depends very much upon the organisation of credit.

7231. But what I gather from you is this, that if you were to largely increase or largely diminish the amount of the mass of the precious metals either in the country or in the world, that must affect to some extent the prices of commodities, either by raising them or by causing them to fall?—Of course it must be; but the questions are so intricate that you cannot give a definite ratio. You are aware that there were great gold discoveries in the 15th and 16th centuries. That no doubt affected prices to a certain extent, but all the best authorities at the time agreed that prices only rose about half what might have been expected from the increased quantity of the metal, and the reason is this. There are two great branches of commerce. There is, first of all, the commerce in commodities, and in the next place there are commercial and mercantile bills and loans. Now one part of money goes to exchange with commodities, and another part goes to buy and sell debts. One part of the money goes to affect the prices of commodities, and the other affects the rate of interest. As an instance, I will take this country alone, which will give a good example of it. You know that prices have risen enormously since the days of William the Conqueror. What has raised prices so much? Of course there has been a certain amount of increase of metal. What has raised prices so enormously in this country since then? Why, it is the development of credit, because credit has exactly the same effect on prices as money. In the days of Charles II. 10 per cent. was the legal rate of interest. When the banks were founded in this country depositors in banks used to receive 6 per cent. interest upon their daily balances, which they do not receive now. But what has reduced the rate of interest so much in this country? It is the prodigious development of banking credits, because a banker never advances money for a bill of exchange. He discounts the bill by writing down the amount to the credit of the customer. He does it by means of a bank credit. As banking has developed, these credits have increased

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They bid one against another and they brought down the rate of interest in a very short time from 10 per cent. to 3 per cent. It is the quantity of banking credits in this country that has brought down the rate of interest, therefore an increase of money or credit, which I treat as the same, has an effect on prices, and on the rate of discount or interest.

7232. But I gather that you attribute the rise in the price of commodities since the days you mentioned much more to the organisation of credit than to an increase of the metals?—I do.

7233. (*Mr. Courtney.*) I understood you to estimate the amount of credit in this country at 6,000,000,000*l.*?—I only take that, as you will understand, as a very rough basis. I take Mr. Slater's account as what you may consider as common in general, but of course you will see that that is very rough.

7234. My question does not refer to the accuracy of the estimate. I want to know what is included in that 6,000,000,000*l.*?—Banking credits and bills of exchange of all kinds; credit in all its forms I may say.

7235. Do you mean what the customers of a bank owe to the bank or what the bank owes to its customers?—Well, each of those is an article of credit; a bill of exchange is one credit, and a banking deposit is another credit.

7236. So that if I have got a balance of 5,000*l.* at my banker, and my neighbour owes 5,000*l.* to the same banker, the two together make 10,000*l.*, part of the 6,000,000,000*l.*?—Yes, because the asset which a banker holds is one article of credit, and the banker's liabilities to his customers are another article of credit.

7237. I am only endeavouring to find out what you mean, and you mean banking debts whether owing to or by a banker are part of the sum of 6,000,000,000*l.*?—I should say so, but I only put it in a very rough way in order to show the enormously greater amount of credit than there is of money. A banker's assets are his property, the bills of exchange are his property, which he can buy or sell or do anything that he likes with, and the deposits are the property of his customers. They are credits which can be put into circulation by cheques or notes.

7238. And if a banker advances 50,000*l.* on a mortgage, would that be part of the sum total?—That credit would not get into circulation; that is not the same thing.

7239. I am not going through the reason of the thing; I only wish to know what you mean. You told me that if a banker lent 50,000*l.* to a man, that was part of the total you sum up to make the estimated 6,000,000,000*l.* Now if a banker lends 50,000*l.* to a man, on mortgage, is that also a part of the sum total or not?—No, I am talking of commercial credits, in the ordinary course of commerce.

7240. Then you do not mean that what a banker owes to a customer or is owed by a customer, necessarily forms a part of it. Somehow or other, you know, you go through an addition sum to make up that 6,000,000,000*l.* You take the case of a banker, and you put down, as I understood, what a banker owes to his customers. You take his ledgers, and you see that he owes so much to A, so much to B, and so much to C and D. They are debts due by the banker to his customers. Then there are also debts due by the customers to the banker. Have you added those up in the total?—Yes.

7241. Suppose one of those debts took the form of a loan on mortgage, would it form part of the total?—I did not consider that case. I took the case of an ordinary banker. I say the quantity of credit in circulation, merely taking these figures, may be estimated at about 50 times the amount of metallic money in the country.

7242. Well, do you mean by that that the amount of payments made in the course of a year are 50 times the stock of bullion in the country?—I mean to say this, that taking the quantity of circulating credit in this country which goes into commercial transac-

tions, it may be estimated at about 50 times the amount of specie.

7243. Well, those transactions might of course include many cross entries, signifying no passage of money whatever?—That is exactly what I say, that an immense amount of the business of the country is carried on simply by compensation of credit, and not by money at all. That is the stupendous difficulty in forming any estimate of the relation of money to prices, because transactions are carried on by a species of barter.

7244. Well, now 6,000,000,000*l.* represents the total payments made in the course of a year, I understand?—No, the quantity of credit in circulation. A piece of credit may circulate like a piece of money. If you have 100*l.* that may pass through 100 payments, and so on, but the quantity of actual specie—I know that some people put it at 100,000,000*l.* and some at 120,000,000*l.*—but I say the quantity of actual credit in existence, rights of action of various sorts, is estimated to be about 6,000,000,000*l.*

7245. But I thought we had come to understand that this total of 6,000,000,000*l.* meant the actual payments made in the course of a year?—No, the quantity of credit.

7246. Well, I wish you would just in imagination give me the items, or class of items, that make it up?—Very well, there are first of all banking deposits, then there are mercantile bills of exchange.

7247. If you are to stand on banking deposits I come back to the question with which I started. Is a bank debt secured on mortgage a part of your total?—Well, you see the question here I was referring to commerce in general; I was not referring particularly to money advanced on mortgage by a banker.

7248. But why not?—Well, because a mortgage is not part of the circulating medium. I am talking of the credit that forms part of the circulating medium.

7249. Then is 6,000,000,000*l.* the total amount of debts at any one amount, or of daily debts added up throughout the year?—No, credit existing at any particular moment.

7250. Well, now go to the question that the Chairman asked you. You are aware, as an historical fact, that in the years 1848 and 1860 there were great discoveries of gold?—There were.

7251. And additions to the stock of gold in circulation in consequence?—Yes.

7252. Those exercised some influence, I do not care whether great or small. Suppose those discoveries to cease, or rather afterwards to cease as suddenly as they came into existence, what do you conceive would be the effect of the cessation of the supply upon prices?—I think it would be utterly impossible to say.

7253. It would, in your mind, have some reference to this 6,000,000,000*l.*?—Well, it would depend so very much upon the state of credit.

7254. In the United States during the great war there were great changes of prices?—There were, but then gold and silver disappeared from circulation, and private notes were almost entirely used; private credit was used. It was said in the papers that you could not get any change. If you went to get your hair cut, and tendered a dollar, the man gave you a promise to cut your hair five times more; there was no change for a dollar, only promises to pay in goods or services of that kind; gold and silver disappeared.

7255. Now, prices went up to double what they were, at one time during that war?—Very likely.

7256. Would you attribute that fact to the paper circulation being double what the coin circulation had been?—Most probably.

7257. Quite irrespective of the amount of credits?—Well, you must take the two together. You speak of the greenbacks, do you not?

7258. To the notes that were in circulation, the inconvertible notes?—Well, of course they increased. The enormous issues of these increased prices to an enormous extent. In the first war of independence, when they issued inconvertible paper currency, it came to this, that a pair of boots cost six and thirty

thousand pounds, and so in the French *assignats*, and other cases.

7259. Suppose we assume that the inconvertible paper circulation in the United States in the year 1864 was 500,000,000*l.* sterling. And before the war there had been 200,000,000*l.* inconvertible paper and coin?—Yes.

7260. Do you conceive that the scale of prices at the time that there was 500,000,000*l.* of inconvertible paper in circulation would bear the same ratio to the scale of prices at the time of convertible paper and coin in circulation, as the 500 to the 200, or not?—That would be difficult to say, because the quantity of specie to prices bears a great relation to what it has to do.

7261. Well, the country being, suppose otherwise the same, would the proportion of prices be a function of the proportion of the total inconvertible paper to what had been the amount in convertible paper circulation?—It would very probably be a function of it, but I doubt whether any mathematician could say what the function would be.

7262. You would not presume to give any assessment or valuation?—No, I would not.

7263. (*Sir T. Farrer.*) Does not gold, the *l.* for instance, serve two functions; it is a medium of exchange, and it is also—you do not like the word standard—but it is also a measure of value?—Certainly.

7264. Well, the two functions, though they work together, are two really separate functions, are they not?—Perfectly separate functions.

7265. Consequently you might cease to use the *l.* as a medium of exchange, and yet there might be a demand for it for other purposes than currency?—Yes, there might.

7266. Consequently, if you increase or diminish the quantity of gold in the world in proportion to the demand upon it, even if there were no demands at all for currency, you would alter your ratio of value?—Yes, I think so.

7267. Because I think that this reconciles a good deal that has been said. Assume for a moment that we had arrived at a perfect state of barter in this country, and that no gold was used as a medium of exchange at all, still we might retain the gold *l.* as a measure of value, might we not?—You might use it as a measure of value without being money at all. I will give an example of that. In the times of the Homeric poems there was no such thing as money. In one part we find a case of pure barter. Commodities were exchanged against commodities without any reference to a common measure of value. But in other places we find that they had seen the advantage of referring things to a common measure of value. They estimated various things as being worth so many cattle. But these cattle were in no way used as money. That is a striking instance of a commodity being used as a measure of value without being used as money.

7268. And then if you supposed a mountain of gold were suddenly discovered which made the whole quantity of gold in the world double what it was before, and other demands upon gold remained the same, the gold *l.* would be only half the value it was before?—Well, it would vary very considerably.

7269. It would diminish very much the value, and that would alter the value not of every *l.*, as we have assumed that there are no pounds in the country, but every nominal pound represented by credit?—Certainly, I think so.

7270. And is not that one reason why prices are altered when the currency is depreciated; it is not merely because you increase the quantity of the media, but it is because you diminish the real value of the standard; the gold ceases to be the standard?—I think so.

7271. Well, now, I should like to ask you a further question. Do you think that there is any fixed relation between the quantity of gold and the quantity of

credit in a country?—Certainly not, because that depends on the organisation of credit.

7272. Quite so. Well, then, you think that credit may continue to be more and more organised so as to require a smaller amount of gold with a larger superstructure of credit?—Most unquestionably so. The more people cultivate banking habits and pay their gold into the banks, the larger the superstructure of credit, and the more are the transactions which are carried on on credit, and then these payments are made by what is called the principle of compensation, one credit is written off against the other, and you may have that to any extent almost.

7273. Now let me take an instance. A short time ago I believe that in Liverpool the balance of cotton transactions was paid every day in cash?—Yes.

7274. Within a few years a cotton clearing house has been established?—Yes.

7275. And now no money passes at all?—Quite so.

7276. At the end of each day the clerks of the different offices used to go carrying the balance in gold, notes, or cash from one office to another?—Yes.

7277. Now that is done away with altogether, and the whole thing is effected through the medium of a clearing house, without a sixpence passing?—Yes.

7278. That is an instance, is it not, of the increase of the organisation of credit to which you have referred?—Certainly.

7279. The establishment of provincial clearing houses in Manchester and Liverpool is another instance, is it not?—Yes.

7280. And it is possible that a great many more retail transactions are paid by cheques and cleared by the banks than was the case formerly?—Yes.

7281. I heard it stated that at one of the greatest banks in Manchester, where they used to do half their transactions over the counter, they now only do one quarter of their transactions in money over the counter, and that three-quarters are now done by clearing houses, without any money passing?—Quite so.

7282. All these are instances of the increase of the organisation of credit, are they not?—Quite so.

7283. Have you paid any attention to that, are you at all able to say to what extent that has progressed within the last 15 or 20 years in this country or other countries?—Well, no; I could scarcely say that.

7284. Then I want to ask you to go to another point. Is the relation between gold and credit in a country a fixed relation in another sense, or does it fluctuate with the condition of speculation and of trade. Does the reserve which banks are required to keep bear a fixed relation to the superstructure of credit?—Well, it ought to do so.

7285. Do you suppose that at a time when speculation is very rife and sanguine the amount of gold kept in the banks bears the same proportion to the amount of credit that it does when trade is dull or when we are approaching a panic. You do not know that?—I do not know that.

7286. I asked you that question because I wanted to see whether any difference of that sort will clear up the difficulty which Mr. Barbour put to you. You told him that credit has been progressing, and you at the same time told him that credit had ceased to be as prevalent as it was in the booming times of 1873. Now, I wanted to ascertain whether it was possible to reconcile those two things by saying that the organisation of credit has progressed, while the amount of credit, owing to the depression of people's spirits or a difference in their hopes and fears, has caused them to speculate less and consequently has caused credit to be less inflated?—I think that it is exactly as you have said, the spirit of banking and banking habits have increased very much in this country and abroad, but at the same time the spirit of speculation is dead.

7287. Then you think that there is more credit at a time of great speculation?—Most undoubtedly.

7288. (*The Chairman.*) I understood you to say that the kind of credit which you speak of as having

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increased is that credit which consists in banking expedients, in every-day use for the purpose of making payments and credit which is not as great now as it was, is the credit consisting of the readiness to lend money for the purpose of adventure?—Exactly so. The volume of business naturally increases with the growth of the country, and therefore the system of credit must increase naturally, but what I call speculative credit is unnatural credit, a feverish kind of credit, for some particular reason, as there was in 1873 for railroads, and many other things.

7289. (*Sir T. Farrer.*) Credit, according to the notion that you have developed so fully in this paper, means the bringing into the present, and making convertible people's beliefs in the distant and the future?—Credit is the present value of future profit. Every future profit and every future payment has a present value. Supposing that you know that you have got the sum of 100*l.* payable to you this day month. You have a right to that 100*l.* this day month, and you can sell that credit. A credit is a right of action against a person for a sum of money; it is the present value of a future payment.

7290. And must depend to a certain degree on a person's estimate of the future, must it not?—Of course.

7291. And at a time of great speculation people's estimates are higher than at a time of dulness?—At the time of the corn famine of 1847 people thought there was to be a great rise in the price of corn. They sent orders to their agents all over the world to buy corn at the advanced price, and then you know in time of speculation they multiply accommodation bills. They grasp at anything they can to buy up to meet the future demand. During the Crimean war there was great speculation in shipping.

7292. When credit increases in that way is it represented by any additional quantity of gold?—Not necessarily.

7293. Therefore the quantity of gold in relation to the credit is smaller in time of sanguine speculation than in time of dulness?—Yes, of course it is.

7294. Then that does account for the apparent inconsistency that Mr. Barbour endeavoured to point out when you said that on the one hand credit had progressed, and on the other hand credit had collapsed?—Exactly so. I do not think there is any inconsistency in that. I mean speculative credit had collapsed, but naturally in the progress, and improvement of trade, the system of credit will grow greater and greater throughout the world.

7295. You say that money is needed only for settling the balance of transactions?—In a general way.

7296. And, amongst other things, it is needed for the purpose of settling the balance of international transactions?—To a certain extent; but then there is another thing in the development of credit, which has greatly increased in recent times. At the present time public securities of all kinds, and bills of exchange, form part of the foreign exchanges exactly in the same way as material commodities do, and they enter into foreign exchanges exactly in the same way. Suppose you are in America, and you send a lot of railway securities to be discounted in this country. Does not that produce the same effect on the foreign exchanges as so many commodities imported? By this means the whole theory of foreign exchanges is an insoluble puzzle, because the securities pass through the post, and not through the Custom House. There is no possible method of ascertaining the quantity of securities imported and exported from a country at the same time. M. Léon Say says, in his official report on the payment of the French indemnity, and as I had already observed in my "Banking," that they are an insoluble puzzle, because securities of all kinds, bills of exchange, public securities and obligations are exported and imported, and they produce exactly the same effect on the foreign exchanges as commodities.

7297. Therefore, the statistics of the actual import and export of gold tell us nothing at all?—Nothing at

all. You cannot understand the theory of the foreign exchanges by any reports that you see in any of the papers, because an enormous amount consists of public securities which come through the Post Office and not through the Custom House.

7298. Then all this mode of transmitting money between nations economises gold in that way, does it not?—Most undoubtedly it does.

7299. And you cannot tell to what extent?—It is utterly impossible to tell to what extent.

7300. So that what we read in the books about the transmission of gold from country to country, and its effect upon prices, we may put aside as useless?—Well, for all practical purposes you may. The only thing to be considered is the state of the exchanges at any time, that is the only guide it is possible to have.

7301. (*Sir John Lubbock.*) You say in your memorandum that credit has exactly the same effect on prices as money?—Yes.

7302. Well, now, I should like to take a particular case. Suppose that Messrs. Baring and Rothschild agree to advance the Manchester Ship Canal Company 4,000,000*l.* to enable them to carry out that undertaking. The result of that is that a credit is opened in their books in favour of the Manchester Ship Canal Company for 4,000,000*l.*?—I believe so; yes.

7303. Do I understand you to maintain that that operation would have the same effect upon prices as an addition of 4,000,000*l.* to our stock of gold would have?—All the credit that is put into circulation would.

7304. There you introduce the words "into circulation;" but what I ask you is whether the fact of Messrs. Baring and Rothschild opening a credit of 4,000,000*l.* in their books, upon which of course the Manchester Ship Canal Company can draw for 4,000,000*l.*, does that have, in your opinion, the same effect on prices as an increase of 4,000,000*l.* on the stock of our bullion?—Yes, for this reason. Suppose they made it in money it would not have any effect on prices until the gold was introduced into circulation.

7305. Well, we have been told that the operation has been effected, and you have seen no increase in prices?—But then, you see, that is only one transaction. You cannot tell it.

7306. But do you not think if 4,000,000*l.* were suddenly added to the amount of gold in London, that would have an effect on markets?—It would have an effect very likely on the rate of discount.

7307. But this operation to which we have alluded has had no effect on the rate of discount?—The operation you spoke of just now is how every public work in Scotland is carried on.

7308. No doubt; but what I wanted to elicit from you is whether that has the same effect as the addition of the same amount to the stock of gold, and I understand you to say it has?—Yes. Every railroad is carried on by the credit of the Scotch banks, which is exactly a similar operation to the one you mention.

7309. Then you say bills of exchange have exactly the same effect as an amount of gold?—Yes.

7310. Suppose one American house in London draws bills for 1,000,000*l.* sterling, say on its correspondent in New York, and sells to another American house in London. Do you allege that that addition of 1,000,000*l.* sterling to the amount of bills of exchange would have the same effect as an increase of 1,000,000*l.* sterling to our stock of gold?—Well, I imagine so.

7311. At any rate your opinion is that the opening of a credit in this manner, or the drawing of an additional amount of bills, has the same effect on prices as an addition to our stock of gold?—You will find that in every book on political economy. I quite agree with them as far as they go, but I think they have not a proper appreciation of the magnitude of the thing.

7312. I know it is in some, but I wanted to know whether that really was your opinion?—It is my opinion, because if you want to buy a thing you must either buy it by money or credit, and I say that credit has the same effect on prices as money has.

7313. Then I understand you to say that the establishment of a clearing house is an organisation of credit. Is it not rather an economy in the use of the currency?—Well that I think comes to very much the same thing. It is the perfection of the system of credit. The use of the clearing-house is to transfer credits from one bank to another, just in the same way as a credit is transferred from the two customers of one bank from the account of one to the other, that is what I mentioned here; it saves the waste of money.

7314. Before the establishment of the clearing house each banker in London used to send clerks round to the other banks and received what was owed them while at the same time they paid over the counter the claims which other banks had upon him. Then they established a clearing house at which these different cheques were interchanged, and the balance only was paid over?—Yes.

7315. But then there is no difference in credit in such an arrangement; the difference is that the cheques are more conveniently paid, and there is economy in circulation?—Yes, what I call an economy of money, but I divide credit into two parts; one is an economy of money, and one is a purchasing power over and above money.

7316. Then in that case the effect you ascribe to that improvement is that it effected an economy in the use of money?—Most assuredly.

7317. And you do not attach to it any other effect, excepting so far as it was an economy in the use of money?—A great deal more than that, it released that quantity of money. I consider that equal to an augmentation of capital. It releases that money which used to be dancing about from bank to bank, and enables it to be applied to other business.

7318. And that is a very important and beneficial result; but you do not attach any importance to it excepting in so far as it effected an economy in the use of the currency. It enabled those transactions to be concluded with the use of a smaller amount of currency?—Perfectly so.

7319. And is not really the effect of credit altogether the economy which it may effect in the use of the currency?—No, because I consider, as you find every economist says, credit is purchasing power over and above money.

7320. Then you attach to credit an effect entirely over and above that which it may produce in the economy of the currency?—Most undoubtedly. A merchant's purchasing power is his money and his credit. Credit is purchasing power over and above and additional to money.

7321. Now take the case of a man who draws bills on his customers and pays them into a country bank. By doing so he obtains credit on the country bank, in the books of the country bank?—Yes.

7322. Supposing that country bank pays those same bills into a London bank and the London bank opens a credit for the country bank in their books on the same bills. Do you consider that the effect of those bills, upon the currency, is, in that case, doubled?—I consider that every exchange of credit from discount of a bill is the creation of credit. When a banker discounts a bill it is usually said he lends money on the security of bills of exchange. That is an entire mistake. When a banker discounts a bill of exchange he buys the right of action; that is one piece of credit. And how does he buy it? By writing down a credit in his books in exchange for that. This is an exchange, the banker buys one credit by creating another credit.

7323. Therefore, supposing a customer or a number of customers pay, say, 1,000,000*l.* worth of bills into the country bank. The country bank sends them up to a London bill broker and discounts them with him, and the London bill broker rediscounts them with the Bank of England; then you consider those bills would produce three times the effect?—It depends on whether it is a transfer of property or not. If you sell a bill it is like selling any other commodity.

7324. Then you consider that those bills would produce three times the effect?—If it is a transfer of property.

7325. You have laid down the proposition that bills of exchange have exactly the same effect on prices as the equivalent amount of gold; therefore 1,000,000*l.* worth of bills have the same effect on prices as 1,000,000*l.* of gold?—Yes.

7326. Then I put to you this question. 1,000,000*l.* worth of bills, which have been paid into Manchester banks, had the same effect as have 1,000,000*l.* of gold. Now suppose they are then sent up to London and discounted by a bill broker. You told me that you considered they had the same effect as another 1,000,000*l.* worth of gold, if I understood you correctly?—If they are discounted you must have 1,000,000*l.* worth of credit to discount them with.

7327. And then if they are paid into the Bank of England they will produce the same effect again?—Yes.

7328. But what I wish to ascertain from you is, do you consider that the effect of this 1,000,000*l.* worth of bills is multiplied by every time that they change hands. You say that the bills have the same effect as 1,000,000*l.* worth of gold. The bills are paid into a country bank, and they have produced thereby the same effect, in your opinion, as 1,000,000*l.* worth of gold?—Yes, because you must create an equal amount of deposits in a country bank to buy them with.

7329. Then the country banker sends them up to London and discounts them with the National Discount Company. Then I ask you, does that produce the same effect as another 1,000,000*l.* worth of gold, or is the effect exhausted, in your opinion?—When the country banker sends them up to be discounted they become the property of the National Discount Company; and if the National Discount Company buy these bills they must create a credit equal to the amount on which the country banker may draw.

7330. Then, according to you, 1,000,000*l.* worth of bills may produce a very much greater effect than 1,000,000*l.* worth of gold. They pass through several hands and produce on each transfer a similar effect?—Well, they may have; it is perfectly possible. If you buy and sell property of one kind or another, you must have some property to exchange against it. If a banker discounts a bill of exchange he buys a right of action, and by doing that, that is an exchange, and if he re-discounts his bills with somebody else he sells them to somebody else, and he must create a credit in exchange for that. Then take the ordinary case of goods used; suppose the goods pass from the importer to the wholesale dealer, and from the wholesale dealer to the retail dealer, is not a bill of exchange created on each transfer of goods?

7331. What I understand you to say is, that every time a bill of exchange changes hands it produces the same effect as a similar amount of gold?—That is what I said.

7332. (*Sir T. Farrer.*) Your contention is not, as I understand it, that in a given period, say a year, a bill for 100*l.* or a bank deposit for 100*l.*, is equivalent to or does as much work as 100 sovereigns, since, in order to arrive at any such conclusion, we must know how often each of these circulates. But your contention is that, assuming Mr. Slater's account of his practice to be a fair sample of the whole business of the country, it shows, that if the same amount of business which is now done by means of credit and gold as circulating media, were to be done by means of gold alone, without credit, it would require fifty times as much gold as now exists in the country to do it?—Yes.

7333. May I ask one question to clear up that point about the indorsement, because I do not quite understand it myself. Suppose that a bill is indorsed successively by a number of persons, on each occasion of indorsement there is a transaction between the holder of the bill, and the endorsee, and something passes from the person who becomes liable upon it?—A bill of exchange passes in commerce exactly like

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a sovereign. Every indorsement denotes that an exchange has taken place; it has been exchanged for goods or commodities of some kind.

7334. An indorsement is not placed there without the consideration passing to the indorser?—Of course not.

7335. (*The Chairman.*) But does a bill of exchange passing in that way produce any different effect from a sovereign passing?—Not a bit; exactly the same effect, and if you have 10 indorsements on a bill of exchange, it shows that a bill of exchange has been exchanged against eleven times the quantity of goods. Supposing you have 100*l.*, and you transfer that 100*l.* ten times, you have exchanged that against 1,000*l.* worth of goods. You do not indorse a sovereign as it passes in commerce, but an indorsement simply means that a bill of exchange has passed like a sovereign. Because there are 12 indorsements on a bill of exchange that does not make 12 bills of exchange.

7336. (*Sir T. Farrer.*) No, but it makes 12 transactions?—It is 12 transactions; exactly so.

7337. (*Sir John Lubbock.*) I should have thought that the effect of credit consisted in the economy that it produced in the use of the precious metals, but I understand that in your opinion it goes far beyond that?—Far beyond that. As Mill says, everything that is purchasing power is wealth. Credit is purchasing power, the same as money. A merchant's purchasing power is his money and his credit.

7338. (*The Chairman.*) I understand that the credit which you speak of as the same as money is the credit which you have the confident assurance can be, at any time you wish it, exchanged for money?—Quite so.

7339. But which, in point of fact, you do not change for money; and so long as you believe that the banker will honour your cheques, either to the amount you have deposited with him, or to the amount which he tells you he will give you credit beyond that, that is just as good for you as if you knew that he had that amount of bullion labelled with your name in his strong box?—And for the country, and in prices generally.

7340. Then I understand your view to be that prices are regulated by the number of people who are in the market to buy, and the money that they have to give for it?—The money and credit.

7341. I am using now money in the sense of money, or the capacity of getting money?—Quite so.

7342. And if a man is in the market to buy, and he has the belief that he can get 50,000*l.* in sovereigns if he wants it, from his banker, he is just as likely to give a good price as if he knew he had 50,000*l.* labelled with his name in the banker's strong room. I understand that to be your view?—Certainly.

7343. (*Mr. Barbour.*) Do you think that by extending credit in that way you could put prices up to any limit, theoretically?—If credit is as good as money, and anybody can create credit, I do not see any limit to prices.

7344. (*The Chairman.*) There would be no limit so long as you believe that you can turn your credit into money, but when once you begin to doubt your banker honouring your cheque, or making good the promise of credit he had given you, then you would not be in the same position as if you had money?—Credit is the present value of what you believe to be a future payment.

7345. (*Mr. Barbour.*) If credit is as good as money for purchasing, is there any limit to prices?—May not prices go up to any limit?—Why, the limit is simply this: it is exactly the same as if there was an equal amount of gold.

7346. (*Sir T. Farrer.*) Is not the limit to be found in this, the extent of how far your belief is well founded?—Of course it is.

7347. (*Mr. Barbour.*) And that depends very largely on the amount of gold?—That you cannot tell. Suppose there is a scarcity of corn, for instance, and you believe that prices will go up to a certain amount, you give orders to your agents all over the

world to buy corn at a certain price if you are satisfied your credit is sound, but if you have made a mistake, why, then—

7348. But if the person who wants to consume the corn can buy on credit why should not the price go up to anything?—That will depend on the supply and the demand.

7349. Take another case: let us suppose that there are two countries side by side, one using gold only and the other using credit very largely; can the country that uses credit extend its system of credit so as to raise prices in that country very much above prices in the adjoining country, the country that uses only gold?—From your statement I should say yes.

7350. If that were the case would there not be at once an immense import of commodities from the country using only gold to the country using credit?—Well, naturally there would be.

7351. And would not that go on until prices had been equalised?—To a certain extent, yes.

7352. So that in point of fact, if there are two countries, one using gold and another credit, the country using credit cannot by the use of credit force its prices much above the country using gold?—Not above a certain extent. That would depend greatly on the cost of transporting the commodities from one country to another.

7353. (*Sir John Lubbock.*) I should like now to continue my line of inquiry. The working classes by thrift and economies have saved many millions sterling, which they have deposited in savings banks, for which they receive a certain amount of interest. Do you consider that the 90,000,000*l.*, or 95,000,000*l.* in the savings banks, has the same effect on prices as the same amount of gold would have?—The 90,000,000*l.* in the savings banks do not pass from hand to hand; they are in savings banks, of course. If you have a hogshead of sovereigns in a vault that does not affect prices.

7354. Then you do not think that the deposits in savings banks do have the same effect as the same amount of gold would have, because I understood you to say just now that they do not pass from hand to hand?—Because they do not come into commerce.

7355. Then supposing that the richer persons deposit money with the other banks for the sake of the interest, is there any difference between these two cases?—They do not enter into commerce.

7356. Then when you speak of bank credits you must make very considerable deductions, must you not, because you have admitted that you must deduct from the banking credits mentioned in your first page, the savings bank deposits and the deposits at interest?—I mean the mercantile deposits, ordinary current accounts, which are brought into commerce.

7357. A man opens an account with me, and supposing that he keeps 1,000*l.* upon it. He draws out every day and pays in every day, and that is a facility to him, and for my remuneration he leaves 1,000*l.*, which would give me at the present rate of interest some 20*l.* a year; now how does it affect the question if he pays me in the way of leaving a fixed deposit instead of paying me 20*l.* a year cash?—Because you make a profit on the balance, and on the basis of this bullion which he leaves with you, you can create an amount of banking credit for which you can charge exactly the same price as if you advanced money.

7358. Then you would include current deposits left in bank among the credits which would have the same effect on prices as gold, because you say the banker would use them in discounting bills?—In building up a superstructure of credit for discounting bills.

7359. But the banker does exactly the same with the amount which he received at interest?—No doubt the actual money which he leaves with you enters into your general assets upon which you increase your credit in discounting bills. A depositor in a bank does not go passing a deposit receipt from hand to hand.

7360. If money is left with the banker for the

sake of the interest you would not include it in the bank credits which you consider to act in the same way as gold, and therefore you deduct deposits in savings banks and what are called deposits in banks?—Those deposits in savings banks were not in my mind when I wrote that sentence.

7361. Why should you include a current account where the same average balance is kept, and exclude a deposit account in which interest is paid?—Because in the common current account your creditor, your depositor, puts that into circulation, whereas a man with a deposit account keeps that locked up in his safe and only asks you to repay a little bit at a time, or something of that kind.

7362. But you are aware that it is a very common custom for people in business to keep a general balance of 1,000*l.* or 2,000*l.*, or whatever it may be, depending on the nature of the business, and they aim at keeping a sort of steady balance with the banker. That balance, you said, you would include in the banking credits which you considered to have an effect on prices, because the banker used it for the purposes of discounting?—Exactly so. The customer of the banker has no money, only a right of action against him for a sum of money.

7363. You include these balances, because the banker uses them in discounting bills?—Because the banker uses them in discounting bills.

7364. But, as a matter of fact, he also uses money left on deposit accounts in discounting bills. Why did you then not include them?—I did not exclude the money; it is a deposit receipt that I was speaking of.

7365. But supposing a man opens an account with the bank in the ordinary way in the country; and does not take a deposit receipt but leaves 1,000*l.* at a week's notice, and receives two or three per cent. interest. I understood you did not include such accounts in the banking credits in this memorandum?—Well, I was not thinking of them. I was thinking of the common working accounts which a banker has in his bank when he discounts bills.

7366. Then you think that the working accounts have a totally different effect on prices from the deposit accounts, because the one you consider affects prices the same way as gold, and the other you think has no effect upon prices?—I do not consider a deposit receipt has any effect on prices, because it is not put in circulation; it is only payable to the man himself. He puts it away in his desk. It does not come into commerce. I only consider those things have an effect on prices which come into commerce.

7367. Suppose that a man opens an account with me; he considers within himself: "I am to give my banker a certain amount of trouble, for which 20*l.* or 30*l.* a year would be a fair remuneration. I am not to pay him the money down, but I will leave 1,000*l.* as an usual amount in his hands. He will employ that and get the 20*l.* or 30*l.* back." Would you include an account of that sort among the banking credits which act in the same way upon prices as gold?—Well, I do not see why you should not. What I want to say is that a credit is a piece of property. It has exactly the same effect as money, and if you keep credit not in use it is like keeping money not in use.

7368. The average balance left on current account acts in a different way from the deposit of an amount bearing interest?—No, because that is thrown into your general assets; the money paid into you on deposit receipt at seven days' notice goes into your general assets and is part of your reserves upon which you rear up the superstructure of credit, by which you discount bills, and so on.

7369. (*Sir T. Farrer.*) Does it enter into the circulation till a cheque is drawn for it by the customer?—Of course not; it is only when the cheque is drawn. The origin of credit is the right of action which is created on a loan of money or a sale of goods. If you lend money at 5 per cent., it is a sale or an exchange. You cede the property to the borrower and in

exchange for that the right of action is created to demand 105*l.*, say one year hence. The right of action to demand 105*l.* one year hence is the credit.

7370. (*Sir John Lubbock.*) But when you speak of banking credits here, you now say you were not thinking at the moment, and you do not intend to include such banking credits as the amount in savings banks or deposit accounts bearing interest?—Deposit receipts you mean? I was not thinking of them.

7371. Now that you do think of them you do not intend to include them?—No, I should not do so because they are not brought into commerce.

7372. (*Mr. Courtney.*) A person who has a right to receive 105*l.* at the end of a year, and can transfer that right, is the possessor of a credit?—Yes, that is it.

7373. And supposing a man has a right to receive 100*l.* at the end of 10 years, and 5*l.* every year, in the meanwhile is he also in possession of a credit?—A credit is a right to receive payment.

7374. If I defer it for 100 years with a right to 5*l.* a year only, is that a credit?—Of course it is a public credit.

7375. Do the 700,000,000*l.* owed by this nation exercise the same influence on prices as 700,000,000*l.* of gold?—No, because it does not go into the circulation.

7376. They are saleable and transferable?—I know they are, the funds are a mass of exchangeable property, but still they are not used as circulating medium.

7377. Most credits are not used as circulating medium?—All credits are used as circulating medium; that is what the circulating medium is.

7378. (*Sir John Lubbock.*) You have just excluded deposits in savings banks and deposits at notice?—Circulation is when exchange takes place for commodities, either for money or credit, and the circulating medium is the medium which causes circulation, and the medium which causes circulation is money and credit.

7379. (*Sir T. Farrer.*) Supposing, as some people have contemplated, that you got a system by which you could transfer land by handing about a piece of paper and you handed it about, would that become circulating medium?—No, that is a different thing altogether, that is a title to land.

7380. (*Mr. Courtney.*) I do not understand what is your ground of distinction between a 100*l.* bill, payable 12 months hence, which I sell for what I can get, and which you call an instrument of credit, and 100*l.* 3 per cent. consols, which I also sell for what I can get. Why do you call one credit and reckon its influence as such, and not the other?—For this reason, that bills of exchange, notes, and cheques are used in commerce as circulating medium, but stock is not used as a public circulating medium.

7381. (*The Chairman.*) If you used 100*l.* of stock to pay for goods brought into this country in the same way as you do a bill, ought you to say it is circulating medium?—If it was so used, but it is not customary to use stock as circulating medium.

7382. (*Sir John Lubbock.*) When you say bills of exchange have the same effect as an equal amount of gold, you mean that such bills of exchange as are put in circulation have the same effect?—Yes.

7383. And bills of exchange which are locked up and held by the drawer until they are due, would not have that effect?—No, because they are not in circulation, but the original debt on which they were founded was an act of circulation. The basis of commerce is that bills of exchange are paid for commodities.

7384. Supposing a bill is drawn upon a country customer, and paid into a banker, and it remains in the banker's hands until due; would a bill so treated, in your opinion, have the same effect on prices as the same amount of gold?—No, because it has not got into circulation.

7385. Then from the bills of exchange and bank credits which are mentioned in your memorandum

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as having the same effect on prices as so much gold, we must deduct savings bank deposits, deposit accounts, and also all such bills as are not discounted?—Exactly so, but the original transaction on which the bill was founded was a sale.

7386. (*Sir T. Farrer.*) It would be like money locked up in a chest?—Of course it would. If you have a quantity of sovereigns locked up in a box they do not get into circulation.

7387. (*Sir L. Mallet.*) I gather from your answers to-day that you think it is quite impossible to lay down any rule which will guide us in comparing the quantity of credit with the quantity of the metallic money in circulation?—Yes.

7388. Very well; what I want to ask is this: It has been mentioned in the course of the discussion, that the amount of credit, consisting of banking facilities and all the rest of it, may be very much larger at one time than at another on the same metallic basis?—Certainly.

7389. That seems to me not to be the question. The question that presents itself to my mind is this: Assuming that we had two periods of equal prosperity with the same banking facilities, and in which economical methods have been adopted precisely to the same extent; well then I say will 100,000,000*l.* of metallic currency enable a superstructure of credit to be built upon that larger or less than a metallic basis of 50,000,000*l.* By doubling the metallic basis will you be able to have a larger superstructure of credit, will you not, with the same banking facilities? I have been a diligent student of your excellent works, and I think you say that money and credit must rise and fall together. Very well, that means to say that 100,000,000*l.* sterling in metallic currency at a particular time, and with the same amount of banking facilities, will afford a basis for a larger amount of credit than 50,000,000*l.*?—Yes.

7390. And therefore the larger the stock of metallic money the larger the amount of credit which may be built up upon it, the same banking facilities being admitted on both occasions?—Certainly.

7391. Then there is another question. Is it not necessary in estimating the effect upon prices of money and credit, to look at the effect of the system existing in other countries. Must we not also look to the effect on prices of the systems in force in all the countries which constitute the great commercial unit of the world?—That is exactly what I said here.

7392. (*The Chairman.*) You have said that with double the amount of a metallic basis you might erect a much larger superstructure of credit. I gather from that that you mean that you might safely do it?—You might safely do it.

7393. But might you have a much larger superstructure of credit and a growing superstructure of credit, without any addition to the metallic basis until you come to the point where people distrusted

your metallic basis as not being sufficient?—Of course you might, because if people saw that the Bank of England had only, we will say, 500,000*l.* in gold to meet all its liabilities, that would shake the credit of the Bank of England.

7394. What I mean is, supposing the indebtedness of the banks suddenly to increase by means of the credit that they are giving, until you came to the point that the customers of the bank doubt whether they will get gold for their cheques, does it matter how much gold the banks in reality have?—No; but then you see of course in any system there must be a certain proportion to maintain the stability of the system. What I say is that the larger the banking system is, and the better organised the system is, the smaller is the basis of bullion which is necessary to maintain the stability of the system. But still there must be a certain basis. Supposing you were to have only 500,000*l.* of gold in the Bank of England, that would bring on a monetary crisis, and when the gold goes down in the Bank of England, what do you do? You raise the rate of discount, and that is for the purpose of checking the creation of bills, and also for attracting bullion from abroad, which it does. That is the great method of regulating the Bank of England now.

7395. (*Sir T. Farrer.*) And the amount that is necessary for that basis depends upon people's opinions?—Of stability, certainly. Why then now take the basis the Bank of England is now; of course it has got a certain amount locked up in the issue department which is of no practical use, because you cannot get that unless the Bank went into liquidation, or by breaking the Bank Charter Act, but it is perfectly astounding to see the small basis of bullion which is maintained by the Bank of England to maintain the vast mercantile system of this country.

7396. But I suppose that rests upon the confidence that the Bank can at any moment attract gold from abroad if it wants it?—By the rate of discount. Practically speaking, the whole amount of gold the Bank has are the notes in the banking department, and the gold and silver, because the gold in the issue department cannot be got at, and it is something wonderful to think that with that amount of bullion the whole banking system of this country revolves.

7397. (*Mr. Birch.*) I understand you to assert that the volume of the currency is increased by various instruments of credit which are equivalent to gold so long as there is confidence that for all intents and purposes they can, if required, be paid in gold?—That is so.

7398. If a banker advanced a customer 50,000*l.* on mortgage, the cheque which represented the amount would, for the time it was in circulation, increase the volume of the currency, and if the money was employed in the purchase of wheat or any other commodity, it might influence a rise in prices, more money being thus available for the purpose?—Just so.

The witness withdrew.

Adjourned till Monday.

Thirty-first Day.

Monday, 25th July 1887.

PRESENT :

THE RIGHT HON. LORD HERSCHELL, the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.
MR. J. W. BIRCH.
MR. HENRY CHAPLIN, M.P.
MR. L. COURTNEY, M.P.

SIR T. H. FARRER, Bart.
MR. C. W. FREMANTLE, C.B.
SIR JOHN LUBBOCK, Bart., M.P.
SIR LOUIS MALLET, C.B.

MR. GEO. H. MURRAY, *Secretary*.

MR. H. WOLLASTON BLAKE called and examined.

7399. (*The Chairman*.) You are one of the Directors of the Bank of England?—Yes, I am.

7400. And you have given some attention to the proposals of those who advocate bimetallism?—Yes, it is a matter that has often been before me.

7401. And to the alleged evils which those proposals are designed to meet?—Yes.

7402. First with regard to the alleged appreciation of gold in relation to commodities owing to monetary changes and a diminished supply, what have you to say?—My general opinion is that the supposed effect of a diminished supply of gold, if it exists at all, has been very greatly exaggerated, and I come to that conclusion from looking at the facts and statistics that have been given in various papers. The total quantity of gold in the world is estimated at about 800,000,000*l.*; and assuming that the annual supply from the mines, a certain number of years ago, was about 30,000,000*l.* sterling, and now 20,000,000*l.*, there would be an apparent difference of 10,000,000*l.* That would amount to only about $1\frac{1}{4}$ per cent., which in itself is an exceedingly small variation; but of course we have to regard the total circulation of the world, which does not consist, by any means, of gold only. Then, again, as an evidence that apparently there has been no appreciation of gold; in the last 30 years there has been a very large increase in the total production and in the supply of gold in the world. According to statements made, the quantity of gold in the last 30 or 35 years has been a great deal more than was produced during the 358 years, from 1493 to 1850, supposed to be 660,000,000*l.*, but at any rate it is estimated at about 890,000,000*l.* between 1851 and 1885. No doubt a large quantity of that has become absorbed in the currencies of Germany and other countries, and there is a certain quantity that has been used in the arts; but at the same time, allowing 250,000,000*l.* for such purposes there still would apparently remain a very vast increase of about 640,000,000*l.*, so that on the face of these facts there is no proof, as far as I see, that there has been any actual appreciation of gold. Then, again, there is the evidence which is given of the gold in the banks of Europe and the banks of America. It appears from carefully-prepared tables which I have seen, in which the circulation and specie reserves of all the principal banks of Europe and the United States are given, as they existed in 1873, and again in 1885, that there was an increase apparently of 29 per cent. in the total note circulation, but the gold reserve had increased 75 per cent. and the silver reserve 25 per cent. From 1870 to 1874 the gold reserve amounted to about 28 per cent. of the total note circulation, and 64 per cent. of all the specie reserves; but in 1885 the gold was 41 per cent. and the specie reserves 71 per cent., and, therefore, it would appear from these facts, the supply of gold has been really increased; at

any rate, there is no evidence, so far as I can see, of an appreciation of gold or a falling off.

7403. Where gold is the standard is it the only matter to be considered in estimating the effect of the currency upon prices?—My idea upon that subject is, that gold after all can only be regarded as the small change of commerce, used for settling differences between one nation and the other, and in respect of local circulation, for settling the differences between bankers and individuals. But the real ocean of circulation, as I regard it, in foreign trade, consists in bills of exchange; in local trade it consists of all the various expedients, of which you have heard so much in regard to banking, such as internal bills of exchange, bank notes, cheques, and especially the clearing house arrangements. By which transactions to the extent of 100,000,000*l.* are settled weekly on a gold basis without using any gold at all; and amongst the Associated Banks in America it is found that equally large transactions are completed with an interchange of gold of only half of one per cent. Under all these various systems the real total circulation which pervades the whole world is so enormous that the small variations which I have been speaking of, namely, one or two per cent. in the amount of gold become infinitesimal when put upon the great reservoir of the real means of affecting exchanges; and further it appears from certain statistics, which I did not mention previously, that according to Dr. Soetbeer's calculations, in 1877 he put the quantity of gold in a certain list of civilised countries at 145,000,000*l.*; in 1881 at 195,000,000*l.*; and in 1885 at 252,000,000*l.* In the face of that the gold has not diminished, and therefore again it cannot have appreciated; but compared, as I say, with the real currency of the world and the real currency of particular nations, it appears to me absolutely infinitesimal.

7404. It has been said that the appreciation of gold is established by the general fall of prices which has occurred since 1873 in almost all articles of commerce. Have you any observations to make in regard to that?—It appears to me that the fact of there having been a general depression since 1873 as regards prices forms the ground of an assumption but not a proof of a supposed appreciation of gold. I believe that in most cases the fall of prices in individual articles may be accounted for in various ways. In the first place there have been many improvements in manufactures, both chemically and mechanically, by which numbers of articles have been produced at a much cheaper rate. Then, again, there have been great improvements and diminution in the cost of transport arising from improvements in steamboats, and their very much enlarged character by which a ton of goods can be carried a vast deal cheaper than it formerly could. I think I can give some instances of cases in which it appears to me that the fall of prices can have nothing to do in any way with the supposed appre-

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ciation of gold which I do not admit. There is no doubt that there has been a great depression in prices generally, and they have affected all nations, nations which have a currency based on gold, and those which have a currency based on silver or paper, and, in short, it is perfectly general. It affects those that have free trade and those that are under protection.

7405. (*Mr. Barbour.*) Have prices fallen as much in silver countries as they have in gold countries?—I believe that in most countries—I do not know what it may be in India, but I suppose it is pretty much the same there—there has been practically speaking, a general depression of prices, arising from circumstances connected with the articles themselves.

7406. Has there been as great a fall, so far as you are aware, in silver prices as in gold prices?—I am not able exactly to answer that; but this is what I conceive really happened. From 1871 to 1873 there was a period of very extraordinary excitement. Prices were all running up to a very great height, and there was great speculation. There was an enormous expenditure. There was a rapid construction of railroads in various parts of the world. The Suez Canal was opened; then there was the German war; there was an immense indemnity and immense expenditure going on at that time, all of which raised prices to a most incredible extent. Then, prior to 1873, there was an extraordinary excitement in the engineering world, and there was a most remarkable demand for iron. In Prussia there was a great number of joint stock companies established with immense capital. It is stated that in 1872 700 joint stock companies, with above 100 millions of capital, were formed there. The same thing happened in the United States, and was carried on to a very great extent there. In 1873 there came a general crash, and there was an enormous amount of bankruptcies and failures. But what is most striking is to observe the prices of pig iron at that period. From 1871 to 1872 pig iron in America, and it was the same thing practically here in the same proportion, was 30 dollars a ton, 38 dollars in 1872, and 53 dollars in 1873. It was 38 dollars just in the intermediate time. Then there was a sudden collapse, an immense decrease of production, and then pig-iron, which was sold in 1872 for 53 dollars was 24 dollars a ton in 1874, 21 dollars in 1876, and 16 dollars in 1878. It appears to me that that sort of extraordinary variations must be attributed to some totally different cause than any change in the quantity of gold in the world; particularly when, as I said before, the variations in the quantity of gold are infinitesimal when put upon the whole reservoir of currency in the world, therefore, so far as I can see, that fall in prices and sudden rise before 1872 was dependent upon entirely different causes, and had nothing to do, practically speaking, with the currency or with the quantity of gold.

7407. (*The Chairman.*) Is there any other article with respect to which you would make a similar observation?—Yes; there was a paper read by Mr. Goschen, which I heard some time back, in which he gave a considerable list of articles, in all of which he showed there had been a great fall of prices, and he said that was so remarkable that he could attribute it only to a general cause, which he was led to suppose was the appreciation of gold. But when you come to go through them, almost all can be traced to special causes appertaining to a vast amount of articles. So far as I see there is a much greater tendency to produce a variation in prices by anything affecting credit and the credit circulation, than can be attributed in anyway to the variation of the gold itself. Now there were various articles mentioned by Mr. Goschen, and I will take all the principal ones. There were three or four, which apparently, according to other tables, clearly showed no diminution at all. They were comparatively unimportant, but I will take one which he mentioned, namely, sugar. There were very peculiar causes

affecting the price of sugar. It was about 1873 that the great development took place of beetroot sugar in France and Germany, and that was aided very much by bounties, and, in short, it increased enormously. West Indian sugar also, between 1877 and 1882, increased about one third. Beetroot sugar increased about 45 per cent. These increases were so great that there has been a steady fall in the price of sugar wholly irrespective of any supposed appreciation of gold, because sugar in 1830 was about 50*l.* a ton, in 1840 it was 40*l.* a ton, in 1880 it was 25*l.* a ton, and in 1886 it was 16*l.* a ton: showing a steady decrease for all those years, wholly irrespective of the question of currency or circulation of gold. It was dependent upon the amount of production of the article. Then the quantity in Germany was so vastly increased that they exported double in 1884 what they did in 1882. All these are indications of special variations as applicable to that particular article, and the steady decline has really followed the usual law of supply and demand. Production has increased and prices have gone down quite irrespective of gold, as I say. Then take tea. There has been a most enormous increase in the production of tea in Japan, India, Java, and Ceylon. India has quadrupled her exports of 1873. Then, as I mentioned before, freights have been extremely low, therefore that has brought the tea in at a much less cost, and hence a marked fall in tea has taken place. Then coffee. That is rather a peculiar article, and a very fluctuating one, as it is dependent on seasons, and one could not draw any very definite conclusion from changes of prices as regards coffee. But from 1866 to 1870, according to certain tables prepared by well-known statisticians, the price was expressed by number, 142; but from 1876 to 1882 it was 207. That indicated no scarcity of gold, if it was dependent in any way upon that. Then from 1881 to 1885 it went down to 139, but latterly, in the last year, it has nearly doubled, owing to failure of crops, and so on. Therefore I look upon it as regards coffee, that you cannot obtain any indication whatever, or can apply the theory that the change in prices in coffee can be attributed in any way to the scarcity of gold. Then we come to wheat. There is no doubt the depreciation of silver, to a certain extent, has stimulated the export of wheat from India and a much larger area has been brought into play. Then, again, the quantity of wheat produced in America has been enormously increased, and the transport very much cheapened. All these things will account for a great depression in wheat. I happen to be a director of the Great Indian Peninsula Railway, and therefore I see to a certain extent how the exports come down by that railway to Bombay. In the half year ending 31st of December last about 500,000 tons of wheat were brought down to Bombay for shipment. Of that 500,000 tons 420,000 were shipped from Bombay, and we knew its destination; the rest was still in the warehouses there and had not been shipped. For some time, I supposed, setting aside all the importation from America and all other places, these 500,000 tons came to Liverpool, invaded this country, and possibly accounted for a reduction of prices here, but, as a matter of fact (of course it supplied Europe), it did not deluge England, for of that 420,000 tons of which we knew the destination, 200,000 tons stopped in Italy, for the purpose of their manufactures, macaroni and so on, 50,000 tons stopped in Egypt, 100,000 tons went to France, a small quantity to Spain, and only about 40,000 tons came on to England at all. Then I have already mentioned about the variations in the price of iron; but I want to point out particularly the great improvements that have been made in the manufacture. In the first place, the fuel used in the manufacture of iron, owing to improvements, is only one half what it used to be; that makes a very great difference. Then in the machinery and in the rolling mills there have been enormous improvements. Steel rails which used to cost 22*l.* or 23*l.* a ton about 25 years ago have come down now to 4*l.* a ton, a

change wholly irrespective of currency and entirely due to improvements. Then, again, the fall of the prices of lead is due to the immense increase of production, especially in silver mines, because from the argentiferous ores they extract the lead in very large quantities. It is a bye-product that they sell at just what they can get for it. Then the same thing applies to copper; there have been enormous discoveries as regards copper, (I know this pretty well because I am rather a large consumer of copper in various ways as a manufacturer and an engineer,) and it has gone down to a half what it was before. I know in some evidence that has been given to you, that it is supposed, I hardly know why, that perhaps one half of that reduction is due to increased production, and one half of it to a supposed change in the currency, but it seems to me that it is perfectly accounted for without troubling ourselves about gold. It is really caused from the vast increase in the sources of supply, and therefore in production. In Mexico, America, and Spain, the discoveries have simply revolutionized the trade, and consequently between 82 and 85 the price of copper has gone down to one half what it was. I will not mention anything about tin. That is a very peculiar thing; but there, again, very large discoveries have been made, owing in a great degree to the speculations in 1873, and the high price to which tin was run up to. Then, if we go to other sorts of fabrics altogether, there is apparently a great fall in wool; that is an article which has fallen in consequence of a change of fashion. Long wools were used formerly, and then there was a complete change, and they took to merinos. The consequence was that there was a vast increase of that all over Australia and other places, and that brought about a distinct fall there and change of prices. And then there came the chemical discoveries, which are quoted in Mr. Goschen's table. Dyes have gone down, cochineal has ceased to be used, and has fallen, and other dyes have ceased to be used entirely from chemical discoveries. Aniline dyes from coal have destroyed the trade in cochineal and madder, and that is purely owing to a chemical discovery. Then, again, coal has gone down very much. It was run up to an enormous height by the speculations of 1873. Not only was there an increase of rails at that period, but there was an incredible expenditure of capital, and it excited the trade enormously, and coal went up, but they contrive to mine it now much more cheaply. There are other great chemical discoveries in paper, a point particularly mentioned in Mr. Goschen's list, as having had a very large fall, but that is practically entirely accounted for by the use of wood-fibre, and chemical discoveries in various ways, by which they have halved the prices actually of manufacture. The same thing applies to another article mentioned in the list, boots and shoes. The mechanical discoveries are so enormous that they make double and treble the number of shoes with the same machines that they used to do in the last few years. The fact was, that up to 1873, people had no time to do anything but produce, and they got great prices and they were satisfied. Since then the discoveries, both chemical and mechanical, that have taken place, have been enormous, and people have had greater competition.

7408. (*Sir T. Farrer.*) Do you say that greater discoveries have taken place since 1873 than in the years immediately preceding?—Very much greater discoveries, both chemical and mechanical.

7409. Which you attribute to the impulse given to the inventive faculty by the fact of depression and consequent severe competition, by which everybody was put on his mettle to see how cheaply he could produce?—Yes. Prior to 1873 people had only to work as hard as they could to meet the demand. After 1873 there came great competition and all their inventive faculties were brought into play, and hence the whole question of production of most articles has taken an entirely new phase, and has had to adjust itself in all commercial transactions, to meet an altered state of things, but altered from dis-

coveries, and not as I think with any relation whatever to the question of gold currency. But there is one item which I should have thought would certainly have gone down if it had been a question of currency, and that is wages. Wages have not gone down. They were immensely increased in 1873, but they, practically speaking, have retained a great portion of the rate. The wage-receiving class have benefited, because their power of purchase has been very much increased, owing to depression generally in prices.

7410. (*Mr. Chaplin.*) Do you include agricultural wages in that statement?—Well, I was applying it certainly a great deal more to mechanical wages, which I know much more about than I do of agricultural wages, but I do not think there has been any material reduction in mechanical wages.

7411. You are not aware that in some of the agricultural counties wages have fallen nearly 30 per cent.?—Wages have gone down by the vast increase of the area which supplies this country and Europe with corn.

7412. (*Mr. Barbour.*) Do I understand you to say that the money wages of mechanics and artisans have not fallen in any degree?—I see very little difference. I know that in my own factory at Soho there is little change in the skilled labour. I do not think there is any alteration. It rose, and it has retained its height.

7413. And the unskilled labour?—In unskilled labour there is perhaps some slight difference, but I do not think there is much difference as regards our average of wages, although there is much greater purchasing power.

7414. May we take the great cheapening of production of which you speak, as a sign that labour has become more efficient. The same amount of human labour will produce a very much larger amount of steel rails and other articles than it formerly could, and therefore labour is more efficient?—The labour is more efficient, due to mechanical improvements, but wages themselves have not materially fallen.

7415. Do you consider that wages have neither fallen or risen?—No, they remain pretty much at the spot that they did, rise to under the excitement and inflation at that period, so that it looks to me as if in all these cases that I quoted, the fall in prices has really been dependent on causes affecting the several articles and general improvements, and not, in my belief, on currency.

7416. (*Chairman.*) Now, with regard to the depreciation of silver, what is your view of the causes of the depreciation of silver?—I presume the causes of the depreciation of silver are, in the first place, large production, in the second place, the demonetization of silver in Germany and some other places, by which a larger quantity was thrown upon the market of the world; and it takes a considerable time for a metal of that kind, of which there is a large surplus, part of it temporary, no doubt, arising from the demonetization of silver by Germany, to get absorbed by the silver-using countries.

7417. Have you considered the effect upon India of the depreciation of silver?—I have nothing to do practically with the trade of India, but I only see it indirectly, knowing how the Great Indian Peninsula Railway and other railways are affected. My impression is, that in India generally the condition of the mass of the people has materially improved. There is no question at all about the exports from India having been stimulated and vastly increased, and I assume the people, in consequence, have become generally richer and better off, because they have been able to purchase much more largely and import more largely.

7418. And you say that the fact of an increased import is evidence that the position of the people has improved?—Yes; I infer that, certainly.

7419. You are of course aware of the loss that arises to the Government from the financial embarrassments caused by variations in exchange?—There is no doubt about that, that where the Indian Government has con-

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tracted to pay in gold it suffers from the depreciation in silver; and, as far as employes are concerned, on that portion of their income that they have to remit home, they lose. But their bargain was to be paid in silver. If they had been in any other country that suddenly increased its circulation by a great expansion of paper, they would probably have been in a worse predicament; and those who had salaries before the American War, payable in dollars, of course had to submit to the dollar becoming 2s. instead of 4s.

7420. The financial difficulty in India, if it were to increase, would have to be met, I suppose, by increased taxation?—Well, I have no doubt the Government of India can devise means to meet their difficulties very easily. I should think they can increase their taxation when the general condition of the country is richer and improved; or they could modify their arrangements for their expenditure.

7421. Do you think that the perplexity alleged in regard to the varying rate of exchange is well founded or is exaggerated?—I think it is immensely exaggerated. It seems to me that all merchants can take very good care of themselves. From time immemorial they have had to incur risks, and they have had to deal with great fluctuations of exchange, arising from all sorts of causes. They are affected by wars and by depreciated paper, and revolutions and famine, and all these affect the exchange and the prices of articles, and merchants have always been able to do a fairly satisfactory business, and therefore I regard altogether the idea that they have been subjected to much greater risks and difficulties by a change in the value of silver (which is slow and gradual) than they had before, as a great exaggeration. And, furthermore, I really think it is the other way, because the enormous advantages of quick transport, bringing their goods much earlier to the market, the complete knowledge of all that is going on by the electric telegraph, the rapid arrangements that can be made for credits, all give them facilities which they had not before, therefore, my impression is that they are in a better state than they were in formerly.

7422. With reference to the fear that has been expressed that the appreciation of gold would continue, and that there would be an excessive fall of prices in consequence, what have you to say?—I think that is rather met by the fact that since these fears were expressed many countries have already adopted the gold standard. There is a great deal more gold in Germany, Italy, France, and Austria, and, Mr. Goschen says, more in England than there was a comparatively moderate number of years ago, and the supplies enable that to be met, and when you couple that, as I said before, with banking expedients and the enormous general reservoir of currency, I cannot conceive that there is any danger to be feared from that cause.

7423. I pass now to the suggested remedy, namely, the adoption of a bimetallic system by international agreement. One ground put forward for adopting this course is that any variation in the amount of the supply will be thrown upon the two metals instead of upon one. What have you to say with regard to that?—Well, to begin with, as I have mentioned two or three times, any variation of the kind is infinitesimal when spread upon the real ocean of circulation, but what they say is only very partially true, even assuming that these variations would produce an effect. For instance, if one metal varies, it is perfectly true that a variation of 10,000,000*l.* of gold, everything else remaining the same, would, if spread over both gold and silver, of course be diminished theoretically, but if the gold and silver varied together, the mass would move up and down just as it does now; therefore that argument produces no effect on my mind whatever, and it is too small to be appreciable in any event.

7424. Do you say that it can only be of importance in cases when the two do not vary in the same direction?—Exactly; when they both rise or both fall the argument fails. That is my notion; but, of

course, where they increase or diminish simultaneously then the rise and the fall would be the same as at present, assuming that they have any marked value at all, which I do not agree to.

7425. Then supposing that a ratio were fixed between gold and silver differing from the actual market relation now existing, what would be the effect?—I do not see how that is ever to be fixed in a satisfactory way. If suddenly you announce that there is a fixed ratio, by agreement, say of 15½ to 1, instead of 20 to 1, as at present, of course you at once benefit silver producers and silver owners. You give a fictitious value to silver; there is no question about that, so far as I see it, but I do not think the reasons given, both as regards the diminished variation being spread over a larger quantity, or the merchants' perplexity in dealing, or any of these causes, are a sufficient justification for interfering with our currency.

7426. Do you think that an arrangement of the kind suggested would be practicable and would be adhered to?—I cannot conceive any large number of nations agreeing to the terms of such an arrangement. There would be no penalty to compel them to comply; and the moment it was not the interest of the country to continue in the agreement, I think they would find means of getting out, as they did with the Latin Union. It broke up in consequence of some of the countries not keeping to their arrangement, and also because it did not suit France. Then, again, it would be very exceptional if the two metals were in currency at the same time. There would be a certain difference, and the dearer metal would disappear. In this country, for instance, during the period when there was a bimetallic currency, there was no gold in the country, it was all silver; and afterwards changes in the relative value took place, and the reverse happened. So it was in France. At one period it was all silver, at another period it was all gold, and that will go on in the future as it has done in the past, therefore I think that that is one of the evils which happened before, and will happen again. Then, to have to receive your debts sometimes in silver and sometimes in gold, when you wanted either one or the other, would be very perplexing and disagreeable.

7427. So that in your view the benefits of the introduction of bimetalism, as meeting the suggested evils, will be problematical, and you anticipate very real mischiefs from its introduction?—I think it would introduce evil, and that there is no proof whatever for the assumption made for altering what is an exceedingly good currency, and under which we get on remarkably well.

7428. (*Mr. Barbour.*) I think you said that any change in the supply of gold was quite infinitesimal as compared with the total medium of circulation?—Yes.

7429. Do you think that the supply of gold has simply the same effect on prices as the same amount of paper circulation, such as bills of exchange or cheques. Is not the influence of gold upon prices greater than the influence of an equal amount of bills of exchange?—The bills of exchange so far as I see represent actual transactions, and if the transactions increase the bills of exchange will increase. It is an automatic currency based upon gold and based upon credit, but if the credit were damaged it would have a much more serious effect than any question of the variation of gold which is only the basis of it all.

7430. Would not an addition to the stock of this country of 100,000,000*l.* of gold have a greater influence upon prices than the issue of 100,000,000*l.* in the form of cheques?—You mean that if 100,000,000*l.* were suddenly dropped by a magician's wand into this country.

7431. Came into this country by the natural operation of commerce?—For the moment I should think a sudden addition of 100,000,000*l.* would create a rise in prices in a number of articles, for those who had got the 100,000,000*l.* would have to set to work to find an outlet for it.

7432. But suppose the 100,000,000*l.* to remain permanently in the country?—That is what it would not do.

7433. Suppose the stock of gold in the world was doubled, so that England came to have 200,000,000*l.* of gold?—It would spread over the mass of the world; but it would take time.

7434. But suppose the total stock of gold we have in the world were doubled, would not prices rise? Theoretically in a country not dealing with foreign countries, no doubt if you doubled the circulating medium, whether it were gold or shells, there would be higher prices; but you are assuming a hypothetical case which I cannot imagine.

7435. I only wish to ask you whether an additional supply of gold must not have some effect on prices?—A sudden shower of gold would, I should think, temporarily create some increase of prices, which would soon adjust itself over the whole, or at least in a moderate time. The gold would not remain here. At the same time I cannot deal with hypotheses of this kind exactly.

7436. (*The Chairman.*) That, in your view, I gather, would depend upon the relation which this increase bore to the total circulation of the country, in which you include cheques and other things as well as the actual coin?—Yes, I think that the moment that this influx of gold took place it would find its way into the hands of a certain number of bankers who would set to work to try to make something out of it, so there would be a sudden increase of capital money to be disposed of, but as I say again I do not see that it affects the question at issue.

7437. (*Mr. Birch.*) It must come to purchase something, and therefore that would affect prices?—Yes.

7438. You could not have a sudden increase of 100,000,000*l.* of gold, except it rained from heaven, when I suppose it would be generally distributed. If it were imported in the ordinary way it would come to purchase commodities, and the demand for commodities would no doubt create a rise in prices?—No doubt, and after a time it would find other means of employment.

7439. (*Sir T. Farrer.*) Would not the fact of a sudden increase of credit of the same amount have an equal effect on prices?—When there has been a general feeling of confidence and excitement and a great development of credit, it always showed itself by an increase of prices; then the collapse comes, and a failure of credit, and down prices go.

7440. (*The Chairman.*) Supposing that people in this country were permitted to draw cheques on Australian banks to the amount of 100,000,000*l.*, so long as they believed that those cheques would be honoured, would not that produce precisely the same effect on prices as if you had had the gold from Australia?—I should think so, but, as I say again, I really cannot see in a moment through hypotheses, which I think are very vague, and which would, probably, never come about.

7441. (*Mr. Barbour.*) I think the hypothesis is definite, though it may not be probable?—The hypothesis is definite, but it is dealing with what I think is impracticable.

7442. I think you said that the cause of the variation in the relative value of gold and silver was the depreciation of silver due to the demonetization of that metal, and larger production?—I suppose that is the reason.

7443. And I suppose if the demonetization of silver affects its value, the monetization of gold in countries that formerly used silver would affect the value of gold?—I cannot exactly say what the effect would be, but I regard the gold mass as the real standard of value, and furthermore, that as far as gold itself is concerned, it is only used as small change, and that the question of whether it was monetized or not would, I should think, produce, comparatively speaking, very little effect.

7444. Why has a change of this nature a considerable effect in the case of silver and very little effect in the case of gold?—Because there was a sudden flood of silver thrown on the market, and had to be distributed over a vast region of the world, which takes time, and, therefore, it fell, because there was a large supply suddenly thrown upon the market, which takes time for diffusion.

7445. But I think all the silver that was thrown on the market by Germany was distributed in different countries a good many years ago?—I have no doubt that a great portion of that has been absorbed.

7446. And if, as you say, the larger production of silver reduces the value of silver, would not the reduced production of gold increase the value of gold?—The question of gold itself bears so small a proportion to the total currency which is required for the transaction of the world that there would be very little difference.

7447. Would not the same argument apply to silver?—I dare say it would.

7448. (*The Chairman.*) I understand your view to be that any variation in the amount of gold produced bears so small a proportion to the total amount of the currency founded upon gold, that you think it would not affect the prices in gold-using countries?—No, I do not think it would. I think any ordinary variations in the supply of gold would produce no practical effect upon prices whatever, merely because it is distributed over so vast a circulation.

7449. (*Mr. Barbour.*) You think bimetalism would do very little good as regards distributing fluctuations of supply over all the world?—I do not think it would have any special advantage. The silver-using countries exist now, and the gold-using countries exist, and moderate fluctuations I should think would not affect the question of prices.

7450. Gold and silver have altered in relative value rather more than 25 per cent., have they not?—Yes.

7451. Have not gold and silver prices altered in exactly the same ratio?—No, I do not think the fall in commodities has at all approached to the fall in silver; that is to say, I do not think they are concurrent. I do not suppose for a moment that prices have materially altered in India, which is a silver-using country, as regards the internal commerce of that country; I should think they are buying the corn or the wheat there much at the same price in rupees.

7452. Let us consider articles which are interchanged between England and India. Suppose that 5*l.* in gold purchased a ton of wheat 15 years ago, and at that time 5*l.* was worth, say 50 rupees. The gold price of wheat was 5*l.* a ton, and 50 rupees would purchase a ton; suppose that the price of a ton of wheat is now 4*l.* in England, and that the 4*l.* are worth 50 rupees as before, then the silver price of the ton of wheat would be 50 rupees, would it not, the same as before?—I suppose it would.

7453. The gold price would have dropped from 5*l.* to 4*l.*, and the silver price would have remained the same. Do you think it is a gain to India that the price remained the same?—I do not exactly follow the way in which you are putting it, but practically speaking, the merchant if he buys a certain given quantity of wheat for so many eighteenpences, which he does now in rupees, he has a stimulant; he can get a profit by the importation of wheat into this country notwithstanding a fall here, and a material fall.

7454. But what I wish to ask you is, whether you think it an advantage to India that her prices have remained nearly the same as before, that there has not been so much variation in prices in India as there has been in England?—You must deal with India itself. The wages and the cost out there, I conceive, do not vary materially. The producer finds a greater demand for wheat, and he puts more land into cultivation, and there is a bigger export, and he must benefit by that.

7455. Because he gets the same price as before?—It costs him about the same to produce, and he gets

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the same price, and he gets a profit out of it, and he increases his general wealth.

7456. (*The Chairman.*) He gets the same profit on a larger production. Because there is an increased demand he finds that he can increase his production, and yet make a profit out of it?—They certainly have benefited.

7457. (*Mr. Barbour.*) And in that respect he has had some advantage over the English producer of wheat. The English producer cannot make a profit, I am told, or very little?—The English producer suffers in this sense of the word, because the general area of the world, which can convey wheat to England, is vastly increased, the price is lowered, and, therefore, the English producer suffers.

7458. Do you think that both gold and silver must continue to be used as money, or that it is possible to get rid of one of them?—I should think they would in various parts of the world; there is a vastly greater population which use silver now than gold.

7459. What do you think would be the best way of dividing the countries, between gold-using countries and silver-using countries?—I should let everyone do as they liked; I should not alter our currency, if you mean that.

7460. I know you would not alter our currency; but what do you think would be the best choice for other countries to make; what would be the most satisfactory arrangement?—I cannot give an opinion upon that point.

7461. Do you think it would be an evil if all countries chose gold for their standard?—I do not know that it would be any particular evil, I think it would have some advantages, if they were all monometallic.

7462. Do you think it would cause gold prices of commodities to fall if all the world chose gold as the standard, and silver was demonetized everywhere?—If gold was really the medium of exchange, and nothing else, if all the world then had to use gold, prices would fall, but it is a case that does not exist. I say that gold itself is but the article, which is convenient to move to settle balances.

7463. (*The Chairman.*) Yes. But if countries like India and China, now silver-using countries—with a system of credit not generally developed, at all events to anything like the same extent as in this country or Europe—were to adopt gold instead of silver there would be a disturbance?—I suppose there would, certainly at first.

7464. (*Mr. Barbour.*) Then it is not desirable that they should adopt the gold standard?—It is impossible to say what would be safe and what would be unsafe in a case of that kind. There are such enormous populations, and such a mass of silver used by them, that I cannot pretend to predict what would happen if you take the hypothetical case of gold being distributed over the world as the standard.

7465. But is there not this danger that all countries may take to gold and so cause a great disturbance?—I think if all silver was demonetized and all countries took gold, there would be some disturbance till countries settled down. In civilized countries there is an enormous reservoir of currency based upon credit, and in China and India, and other places in the East, they have not those advantages, and therefore there would certainly be a disturbance I presume in their circulation.

7466. And do you think it is not desirable that these countries should take to gold?—I should let things take their natural course.

7467. But that might result in very injurious consequences, everybody might like to take to gold?—I do not know what they might like, but in practical work it would settle itself; I feel quite satisfied about that.

7468. Are you aware of any period previous to 1873 at which gold was used as the sole standard unlinked to silver in one or more countries?—No, I have no information upon that subject; I cannot answer the question.

7469. (*Mr. Chaplin.*) In other words, that there was always a connecting link between gold and silver somewhere?—I do not know about the general currencies of the world. There was this connecting link in France, but sometimes France was all silver, and sometimes all gold; and ultimately they broke down the arrangement because it did not suit them.

7470. (*Mr. Barbour.*) Would it be a great inconvenience if people were paid sometimes in gold and sometimes in silver?—I think it would be very inconvenient.

7471. What would be the nature of the inconvenience?—If it was to be actually paid in silver I should think it would be exceedingly awkward to have a quantity of carts to transport the silver.

7472. But we have had evidence that in large transactions there is hardly any coin passes, that it is done by credit, so that it would make hardly any difference whether it was gold or silver?—But I may be paid by a cheque in silver, when I want the gold.

7473. Why do you want gold?—I want gold and not silver if I were a merchant, for instance.

7474. What is the advantage in having gold?—Because I might wish to send gold on to a country that might desire to have gold.

7475. But supposing that country coined gold and silver at a fixed ratio, would it make any difference?—It all turns upon the question whether those two metals are in circulation at the same moment. They never are, it is quite certain. In a bimetallic country from some cause or another, at one time there would be gold in it, and at another there would be silver.

7476. (*Chairman.*) Do you think it would be so if all the great commercial countries were bimetallic?—Yes, the same thing would occur if all the great commercial countries were bimetallic. There would be an agio upon the one metal, or an agio upon the other, according to circumstances and according to the demand, as far as I understand the question.

7477. If all the great commercial countries in the world were bimetallic at the same ratio, why should either of the metals leave one of those countries to flow to another?—Well, there will be always the other countries. You cannot get the whole world in. There will be other countries who will want one of these metals. There will be causes which will create a variation. It has always been so. It was so with the Latin Union, and France.

7478. Yes; but at the time of the Latin Union the whole of commercial Europe and the United States were not all bimetallic. What is suggested is, that that flow that takes place, and would take place if one or two only were bimetallic, would not take place if the whole commercial world, roughly speaking—Europe and the United States of America—were bimetallic at the same ratio?—I do not know exactly what would happen; but I feel perfectly satisfied, in the first place, that they would not agree, and in the next place, that it would not suit the purposes, occasionally, for one to remain any longer in the agreement; and I believe it would break down on that ground. But you put a hypothetical case that every one stuck to the bargain, and was perfectly satisfied either with gold or silver.

7479. (*Mr. Courtney.*) If such a thing happened, is it not the case that between countries possessing the same medium of exchange, there is to settle balances a movement of coin from one country to another?—Yes.

7480. So that when we say exchange is against a particular country, the movement of coin is out of that country?—Yes, that is it.

7481. Supposing you had the same bimetallic agreement between all the civilised countries, and at any moment the exchange was against England in favour of America, so that it was necessary to send coin from England to America, although gold and silver would be connected with one another at a fixed ratio when they got there, the less cost of sending gold would make gold the preferable thing to send?—I presume it would.

7482. (*Mr. Barbour.*) You say it is of great importance to a merchant to know that he could get gold?—If he wanted it.

7483. But I asked you whether, if all countries were bimetallic, silver would not serve his purpose equally well?—I think all countries would not be bimetallic. There would always be a certain demand for one metal or the other. There would be a variation in price to some extent.

7484. (*Sir T. Farrer.*) Some witnesses have told us that even if that agreement were come to by Governments, merchants and bankers would still make contracts payable in gold. Have you any opinion about that?—I think they would, because they know perfectly well that they are dealing then with a certain definite article which is the standard of value.

7485. You think they will obey the law now because it suits their habits; but if the law contradicted their habits they would make contracts to receive in gold?—At the present moment take America, which is a bimetallic country, the contracts there in a vast number of cases are always made payable in gold, simply because there is a doubt upon the subject.

7486. (*Mr. Birch.*) Do you not think that the cost of production of gold and silver has a great deal to do with the possibility of being able to maintain a fixed ratio?—I should think that the cost of production would have a very serious effect, because I cannot conceive that they could maintain a fixed ratio when the cost of production varied very much. I do not believe it would be possible.

7487. You know that at the present moment the ratio between gold and silver is 20 to 1?—Yes.

7488. Do you not consider that under these circumstances the inevitable result of opening the mint for the free coinage of gold and silver at a ratio of 15½ to 1 would be that silver would flow in and gold be exported to India and other countries where there is always a demand for hoarding purposes, gold being preferred even now at the ratio of 20 to 1?—Yes.

7489. Is it not evident that any fictitious value given to silver to the enormous extent proposed would tend under present circumstances to increase the production of that metal and reduce that of gold?—Yes.

7490. And therefore in time we might ultimately come upon a silver basis?—There might be a revolution of that kind.

7491. After all it is only speculative; but as far as your mind can contemplate it, it would be impossible to maintain that ratio for any lengthened period?—I should think it was quite impossible, looking at the fact that there would be always a vast mass of countries in the world that would not be in the agreement.

7492. A great deal has been said with regard to France acting as a parachute in certain periods. I do not know whether you have looked into that, but you would observe that during a large portion of that time when gold was very abundant silver was coined in very small amounts?—That I am aware of.

7493. That would prove that one metal was preferred to the other, and it can hardly be said that the ratio in the strict sense of the word was maintained?—It was not maintained in the bimetallic countries, and in France, particularly at one period, it was all silver. Then the variation took place, the gold discoveries took place, then the silver went out, and France suddenly became a gold country. Later, if they had not stopped the free mintage of silver they would have lost their gold of late years.

7494. And that, you imagine, was the reason why they stopped the coinage and why the Latin Union arrangement broke down?—They did not want to lose their gold, and practically they stopped the coinage and broke the agreement.

7495. (*Mr. Chaplin.*) When you say the ratio was not maintained during that time, is it not the fact that the mints were open to the free coinage of silver and gold at a certain ratio all over that period, and also

that all people could pay their debts all over that period, in either metal, as they pleased?—I believe that was the fact, but the currency did not remain equal floating throughout the country; it was one or the other.

7496. But assuming that people could pay their debts at that ratio in either metal, and that the mints were open to coin both metals at that ratio too, I do not understand how you can reconcile those facts with the statement that the ratio was not preserved?—The coinage ratio was preserved, but during this time that the nominal ratio was being preserved, there was constantly an agio. If you wanted the gold you would have to pay a certain extra price for it. They offered it to you in silver, and if you wanted it in gold you had to pay an agio.

7497. You mean if you wanted any number of gold coins for a specific purpose, you would have to give something for the advantage of getting them?—Yes, but supposing I wanted to export gold to a certain definite country that wanted gold, I should have to pay for that. They would not give it to me; they would give me what I did not want. I should have to pay really for what I did want.

7498. And you maintain that that was constantly the occurrence?—I think that was the occurrence. I do not know it practically myself, I only know what I read.

7499. You are not prepared to state that as a positive fact?—No, not myself.

7500. I understood you to say in reply to the Chairman, that the low prices of the articles mentioned in Mr. Goschen's list are not due to anything connected with the currency, but to other causes altogether?—Yes, or at any rate mainly.

7501. I want to take two of the items you mentioned, namely, wages and wheat, and I want to ask you one or two questions upon these. You limited your statement upon that to artisans' wages?—I did, because I know most about them.

7502. You could not say that in some parts of England the wages of agricultural labour have not fallen considerably?—No, I do not know much about it.

7503. Are you aware that there are and have been during the last winter an unusual number of agricultural labourers out of work altogether?—I fancy from the general depression of agriculture that it is exceedingly likely.

7504. Would not that fact modify your views to some extent that the low price of agricultural labour, assuming that it has fallen, has nothing to do with the question of the currency?—No, I do not think it has had anything to do with the question of the currency. It has had to do with the question there of demand. For instance, now I am speaking about agriculture, which you are much better versed in than I am, if in consequence of the low price of wheat a considerable amount of land has gone into pasture, fewer labourers would be wanted, and there would be a fall in wages.

7505. At present you are unable to trace it to anything connected with the currency question?—No, I do not see that it has.

7506. Well, I want to ask you one or two questions on that. The production of wheat in this country of course employs a great deal of labour?—Yes.

7507. A diminished area of land for the cultivation of wheat would throw then a considerable amount of labour out of employment?—I conceive so, yes.

7508. That would tend to reduce wages?—Yes.

7509. Well, I understand you to admit that the depreciation of silver had stimulated considerably the production and the export of wheat from India?—I think so.

7510. Which adds to the competition which the English grower has to meet?—Yes, it increases the general area of land which can send wheat to this country.

7511. That increases the competition of other countries, and tends of course to lower the price?—Yes, certainly.

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7512. And you also acknowledge that the depreciation of silver is partly owing at all events to its demonetization by Germany and other nations?—I suppose so, yes.

7513. Well, then, would it not appear that the low price of one of the articles you have mentioned is very directly connected with the question of the currency?—It has a very indirect connexion. It is true in one sense that where the exchange varies you have a greater area which exports wheat to this country. In that respect the change certainly produces that effect; it has increased, but that is not the only thing, because there has been a vast diminution in the cost of freight, and sometime or other if it went on in India and prices rose, of course there would be an alteration.

7514. But the stimulus to the export of wheat from India, which you admit is caused by the depreciation of silver, is owing partly to the depreciation of silver?—It has been stimulated by that, and also by many other things, that is to say, cheap transport by railroads and cheap transport by sea have most materially helped.

7515. But the depreciation of silver has been a considerable element in the stimulus to the export of wheat?—I should think it had stimulated Indian merchants, no doubt at the present time, at any rate till the prices rise there.

7516. Then surely it becomes very difficult to reconcile the statement that the lower price of this particular article is not in any way connected with the question of the currency?—I especially apply it to the fact that it was not connected with the hypothesis of an appreciation of gold. I did not mention what happened as regards the silver.

7517. You replied to my question that the lower price of these articles was owing, not to anything connected with the currency, but to other causes?—I was talking especially of what is involved in the whole of this argument, namely, that the fall of prices depended upon an appreciation of gold. When I used "currency" I was dealing specially with what I called gold basis currency.

7518. The price of wheat now is about 1*l.* 10*s.* a quarter, I believe?—I dare say it is. The last published average was 34*s.*

7519. I am glad to hear that there has been a rise in something; but it was, not very long ago, I think, 2*l.*?—Yes, three or four years ago.

7520. The value of the rupee has fallen considerably in England within the last few years?—The value of the rupee has.

7521. But I think you said just now it retained all its original power in India?—It has not affected the price in India; the local currency has gone on all the same, so I am told.

7522. The 30*s.* that the Indian grower gets for a quarter of wheat would buy as many rupees, or even more rupees, than the 2*l.* did some years ago?—I dare say it would; the rupee has gone from about 1*s.* 10*d.* to 1*s.* 5*d.*, so that it is an easy calculation to make.

7523. Then the Indian grower, as a matter of fact, is realising as much profit for his wheat as he ever did before?—I should think he was, coupled, as I say, with all the other facilities.

7524. The English grower, on the other hand, is losing 10*s.* a quarter?—He is suffering from the general enlarged area, not only of India but of America. All these arguments apply. They can export wheat from America into this country at a profit, at the present low price, quite irrespective of India, which is a pure addition.

7525. What I wanted to arrive at is this, that one effect of the present system is, that though the price of wheat has fallen to such an extent at this moment that the English grower is losing 10*s.* a quarter, the Indian grower is realising as much profit as he was before?—I fancy he is.

7526. Now, I want to refer to one or two other points. You say the immediate effect of fixing an arbitrary ratio between gold and silver would give a

fictitious value to the latter; I suppose you admit that if the State has the right to give a fictitious value to one of the two metals, it has an equal right to give it to the other?—Yes, I certainly will admit that, but I do not admit that it has given a fictitious value to gold. It is the standard.

7527. Do you mean to say that if gold was demonetized by law, and its value as legal tender taken away, that that would not depreciate its value?—Certainly it would: I should think very likely.

7528. Then the fictitious value that you speak of as being given to silver by the adoption of bimetallism would only be exactly the same fictitious value as is given by law to gold at the present moment?—I do not admit that there is a fictitious value given to gold at the present moment. Gold, as I say again, is a very small factor in the whole affair.

7529. Then, if it has no fictitious value given to it by law at the present moment, how is it that it would depreciate in value if that legal position were taken away from it?—There is a fallacy in your argument which requires a little time to think about.

7530. You say that you see no advantage to England in adopting bimetallism, and you do not believe that any arrangement of that kind would be adhered to by different countries. What is your reason for thinking that?—Because having broken down in their last arrangement, and there is nothing to compel them, there is no penalty to make them keep together, and if it were their interest, for some reason or another, as it was with France to retain her gold they would break it.

7531. And you argue from the fact that Germany demonetized silver some years ago, that practically is what would occur again on the part of one or other of the nations, even if this agreement were made?—I think it is very doubtful that they would stick to it if it were against their interests.

7532. You speak of the difficulties of making such an agreement, which to your mind are insuperable. What are those difficulties?—I think every representative of a nation would have a different opinion; first as to what the relative value was between gold and silver—that would be the first dispute—as regards free mintage whether there would not be limitations upon it. There were limitations in the Latin Union. They were only to coin certain relative quantities in each country, and without pretending to have gone into that matter, I can see all sorts of questions that might arise, creating a difficulty in arrangement.

7533. Bimetallism assumes that the coinage of the two metals should be absolutely free, that the mints should be opened?—It was free in the Latin Union, but yet there were limitations.

7534. (*Mr. Barbour.*) Was there any limit to the coinage of silver by any country in the Latin Union before the French stopped coining silver?—I do not know the details of the regulations, but I know that Italy or the Pope broke them.

7535. (*Mr. Chaplin.*) But there were no limitations surely before 1873?—I cannot answer that question, because I have forgotten the year when the Latin Union was introduced.

7536. You say you cannot realise any benefits that would be derived by this country, and you recognise many disadvantages; would you say what, in your opinion, are the main objections to the adoption of the bimetallic system?—Well, I think I did mention in my evidence that I thought there were evils in the debtor choosing the metal in which he should pay his creditor. That is one evil.

7537. And what does the evil consist in?—The evil consists in this, that if I wanted to be paid in gold for certain purposes I should probably have to pay more for it than if the man paid me in silver, because he certainly would pay me in the cheapest metal.

7538. But if there was a fixed ratio between them how would one metal be cheaper than the other?—It never has occurred. There was a fixed ratio in

France, and yet the metals were never of the same value. Sometimes one left the country entirely and sometimes the other.

7539. Then you deny that it was the case that 15½ of one would always purchase one of the other?—Certainly, there was always a variation. If there had not been a variation, gold would not have disappeared at one period and silver at another period.

7540. Then one of the chief evils that you see is this: that the debtor might choose to pay his creditor in one metal, and the creditor might wish to be paid his debts in the other?—Yes, he may have given the debtor money in gold, and he might wish to have it back in gold.

7541. And you are of opinion that, notwithstanding that the bimetallic system should be adopted, he would be unable to purchase the equivalent amount in the metal that he particularly desired to have without incurring loss?—I think that would be the practical working of it.

7542. Well, what other disadvantage do you see to the adoption of the bimetallic system?—London is the great centre of the whole world; it is the general centre of commercial transactions and monetary dealings. At present it is so, because we have a gold standard, and no question at all about what our currency is and what we are dealing with. If we were dealing with two metals at a variable price I think that alone is an evil and might affect us as the great centre of exchange, which we are at the present moment.

7543. But is it not the case that London was equally the great commercial centre at the time when bimetalism existed in Europe before, and what reason do you see that leads you to think that the adoption, or the re-adoption of bimetalism again should alter in any way that position that we occupied at that time?—I think there are very good reasons given in Lord Liverpool's letter for the adoption of the monometallic standard. I had better refer you to the arguments in that.

7544. But have not the arguments used at that time been somewhat controverted by the experience of a great number of years since then?—Some people may hold different views, but I think the generality hold with Lord Liverpool.

7545. Then your second objection is that it would shake the commercial position which we enjoy at the present time?—I do not say it would do that, but I do not think it would be so convenient as having a sum which everybody understands.

7546. (*Sir John Lubbock.*) But at the same time you think it is a great advantage to British commerce and manufactures that there should be a confidence that the standard would not be interfered with?—I think that is a very great advantage that there should be perfect confidence, that in every transaction they should know that they were to have so much gold.

7547. Is it not notorious that in France, under the old system, if you were travelling and wanted a certain amount of gold you had to pay an agio upon it?—Yes, I believe so; I do not know it practically, that is what I have always read.

7548. And you consider that that would be a considerable inconvenience?—I think so.

7549. Mr. Barbour asked whether there would be any inconvenience if creditors were compelled to take silver; do you not think that for payment of wages there is a great convenience in having both gold and silver coins?—There is no doubt it is a great convenience.

7550. That the presence of gold and silver coins is a great convenience for the payment of wages?—It is a great convenience, but the silver, we all know, is a token, and can only be paid up to certain limits.

7551. But the question of both gold and silver being easily obtainable, is a great convenience in the payment of wages?—No doubt.

7552. And you consider that the practical breaking down of the Latin Union is an indication of what would probably happen in future if there was an

attempt made to re-establish bimetalism?—That is what I should expect. Though not intimately acquainted with the details, still I find that the agreement has broken down.

7553. And if the great countries which have had bimetalism have been unable to maintain that arrangement, you think the mere fact of our joining it, would not make such a difference as to enable them to maintain it?—No, I think not.

7554. You have expressed the opinion that bills of exchange are equivalent to currency; but you would probably agree, would you not, that the effect of bills of exchange on prices depends on the extent to which they effect an economy in the use of gold coins?—I regard it as an immense practical convenience; it is another form of the gold currency. All these banking expedients, whether bills of exchange, or bank notes, or cheques, are equivalent to increasing the general reservoir of the gold currency.

7555. Is that quite so. Is not their effect rather that they enable an economy to be effected in the use of gold?—Certainly, an immense economy in the use of gold.

7556. But would you attribute to them a greater influence than that of the economy in the use of gold which they enable to be effected? If we had not the clearing house, we will say, instead of the amount of gold which we now have, we should require a much larger sum?—Of course this is an economy of gold; all those banking expedients amount to an economy in the use of gold.

7557. And the effect they have is the effect they have in economising the use of gold?—Yes; and practically increasing its supply.

7558. Now, has your attention been drawn to the Appendix to the Report of the Commission on the Depression of Trade, in which it would appear that the supply of gold from 1881 to 1884 was 82,000,000*l.* sterling, of which only 16,000,000*l.*, or less than one-fifth was used for coinage?—No, I do not know that I have seen this.

7559. Would you consider that the demand for the arts being so great in comparison with that for coinage, it would be the demand for the arts that would regulate its value in relation to other commodities?—But the arts would take as its value the value that it has in coinage, would they not.

7560. We have a certain article which is used as regards one quarter for one purpose, and as regards three quarters for another purpose; would not the value be regulated rather by the greater demand than by the lesser demand?—It would if a common article, but this is an uncommon article. This is the standard of value; therefore, what is used in the arts would be regulated solely by the value which it held as currency.

7561. But at present the holders of gold can sell it for use in the arts at 20 times as much as the silver, that being the difference in value between the two metals?—Yes.

7562. Well, then, suppose that the value of gold being 20 times that of silver for purposes connected with the arts, but that for purposes connected with coinage you determine by law that it shall only be worth 15½ times that of silver; would not the effect be that the coinage of gold would be greatly checked, if not altogether arrested?—Yes, I think it is quite possible.

7563. If a person can sell his gold at 20 times as much as silver, for use in the arts, and is compelled by law to take 15½ times that proportion for the purposes of coinage, do you think that would not arrest the coinage of gold?—I think it is very likely; at any rate, it would modify the price at which the producers of gold commodities would give for it.

7564. A person would not be likely to part with his gold for coinage purposes at the ratio of 15½ to 1 of silver if, by using it in the arts, he could get 20 to 1?—Certainly not.

7565. Therefore, is it not probable that the effect

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of bimetallism at the ratio of $15\frac{1}{2}$ to 1 would arrest, or, at any rate, greatly check, the coinage of gold?—The idea is new to me; but so far as it strikes me at first, it would have that effect.

7566. Well, therefore, if that be so, then, practically the adoption of a nominal bimetallic system of $15\frac{1}{2}$ to 1 would in reality be the adoption of a silver standard, because practically you think, as far as you can see, that it would stop the coinage of gold, and, therefore, the whole of our coinage in that case would be silver?—That I am not prepared to answer.

7567. (Mr. Barbour.) Gold is preferred for many purposes, I believe, solely because it contains great value in small bulk?—Yes, that is one of the reasons.

7568. Probably the main reason, is it not?—Very possibly. It is one of the reasons, certainly.

7569. If that be the case the higher the value of gold relatively to silver, the greater will be the demand for gold. The more value gold contains in the same bulk the greater the demand for it, because the more useful it becomes for certain purposes?—It may be so. I do not see the effect. I dare say you are right theoretically, but I do not see the practical working of it.

7570. (Sir John Lubbock.) Is not the greater value of gold for the purpose of the arts rather because it is a more beautiful metal than silver?—That is one of the elements.

The witness withdrew.

Adjourned till November 4th.

THIRTY-SECOND DAY.

Friday, 4th November 1887.

PRESENT :

MR. L. COURTNEY, M.P., in the Chair.

MR. D. M. BARBOUR, C.S.I.
MR. J. W. BIRCH.
MR. H. CHAPLIN, M.P.
SIR T. H. FARRER, Bart.

MR. C. W. FREMANTLE, C.B.
SIR W. H. HOULDSWORTH, Bart., M.P.
MR. S. MONTAGU, M.P., and

MR. GEO. H. MURRAY, *Secretary*.

Mr. J. C. FIELDEN called and examined.

Mr.
J. C. Fielden.
4 Nov. 1887.

7571. (Chairman.) You are a cotton manufacturer?—I am.

7572. And also the manager of a large mercantile business in Manchester?—Yes, I manage a business that turns over nearly 400,000*l.* a year in cotton goods.

7573. And you are also a director of an Eastern trading company, trading with silver using countries mainly?—With Singapore, Penang, Rangoon, Calcutta, Bombay, and Madras.

7574. And your acquaintance with the cotton trade is of long standing?—I went into the mill at 13, and I have been connected with the cotton trade 36 years.

7575. And you are acquainted with the position of the working classes in the trade in the cotton districts?—I have been connected with all movements in the cotton districts among the working classes since 1859; I have been the arbitrator for the operatives in all the great wage questions, where the question has been settled by arbitration. If a district gets into trouble with employers about a wage question, and it is agreed to be submitted to arbitration, the operatives send to me to ask me to take their case. I am not connected with any trade organization or trades union.

7576. You appear before the Commission at the request of the Manchester and Salford Trades Council?—Yes. I also appear in accordance with a resolution of the Blackburn Weaver's Association, and I wish to say that Blackburn is the greatest weaving town in the world. It contains one-eighth of the whole productive power of Great Britain, as far as cotton weaving is concerned.

7577. You propose to point out to the Commission, that if there has been a fall in prices, or assuming that there has been a fall in prices, only a portion of the benefit of that fall is enjoyed by the working classes?—Part of my statement is, that generally

speaking, in only about three-fifths of the total annual expenditure has there been any fall whatever. For instance, I can enumerate certain items, upon which it is quite clear that there has been no fall whatever, but in some cases a rise, such as the cost of Government and local taxation. There is no fall in the expenditure upon drinks, tobacco, temperance beverages, the food vended through hotels, public-houses, restaurants, &c.; railway charges for passenger traffic, the cost of supplying water to the community, and I may as well also say, the expenditure in the way of contributions to friendly societies, clubs, and unions of various kinds, the fees of doctors, lawyers, and the clergy; I may also say that the cost of education has increased, and the daily and weekly press are issued at standard prices. All these items constitute an expenditure, when examined, will be found to amount to at least 400,000,000*l.* a year.

7578. Now, can you give us any idea of the way in which you make up this sum of 400,000,000*l.*?—The cost of governing the country is about 90,000,000*l.*, and the local expenditure is 63,000,000*l.*, but I only take about 140,000,000*l.* for those two items, and I wish here to observe that it is a very curious thing that the cost of government has absolutely increased per head of the population, while all these commodities have been cheapening, and it seems to me that the Government is about the largest purchaser, and a cash purchaser, and that they have not been able to effect this economy which the working classes are expected to effect. The expenditure on alcoholic drinks is estimated at 120,000,000*l.* a year; it was 140,000,000*l.* twelve years ago, while the expense on tobacco is, at least, 8,000,000*l.* a year. I estimate all the other liquids supplied through the hotels and public houses of the country in the form of tea, coffee, various kinds of waters, at 30,000,000*l.* a year. I venture to say, from a very great experience, that these

items tend to increase in price. The passenger traffic on the railways is 32,000,000*l.* a year, I suppose we pay a penny a mile as usual as third-class passengers. The latest return I could get is that of 1884, which gives 30,000,000*l.*, and I estimate 2,000,000*l.* of an increase since then; the only object I have in putting forward these figures is simply to show that there is a very large number of charges that have not been affected by the fall in prices, as far as regards the actual payments. It may be that there is increased comfort. For instance, take education, that is another item, there may be better education, but it costs more money to the working people. I will take the press. I think a fair estimate of the expenditure on what you may call the periodical press—the halfpenny and penny daily press and weekly newspapers—is 20,000,000*l.*, and the prices are practically fixtures. As regards the payments to sick and friendly societies and to trades unions, these items I think I may fairly put down at 15,000,000*l.*, nearly a twentieth part of the income of the working classes. There is a very much larger contribution being made now throughout the country to support the unemployed. It is impossible to give anything like an exact estimate of the other charges named, but they must amount to a considerable sum. I took it roundly that 400,000,000*l.* of expenditure had not changed, as far as actual payments were concerned, notwithstanding the great fall in prices since 1874, and I think, of course, by these items it can be, and is easily shown.

7579. (*Sir T. Farrer.*) Do you look upon all these as a sort of fixed charges, which do not depend in any way upon currency?—I will endeavour to explain the bearing of the question. If a large fall in prices has taken place, and an estimate is made of what benefit that fall may have been to the people, you necessarily have to subtract from any benefit arising from that fall, all those large items of expenditure which have not fallen at all; so that I reckon two-fifths of the expenditure of the country has not been affected by the fall.

7580. And then do you connect that with currency?—Certainly; when you come to consider how far the purchasing power of wages has enabled a lower wage to make a man live equally well, then it becomes an important consideration.

7581. Yes. But how far do you suppose that these payments are independent of currency? Because, supposing that they have not fallen and are dependent on currency, that would go to show that currency has not affected prices?—No, they simply show this, that when a big fall in prices takes place, and everything is supposed to adjust itself to that fall, that the result is not so. I am pointing these out as very important items that do not adjust themselves to such a fall.

7582. They are a kind of fixed charges which are not affected by currency in the same way as prices are?—Well, I cannot call them fixed charges, because I will draw your attention later on to many fixed charges. For instance, I look on royalties and ground rents, and matters of that kind, as fixed charges bearing more heavily on traders, because of the fall in prices. The items I am considering are distinctly connected with expenditure on living only.

7583. (*Chairman.*) You mean, I think, this, that out of the estimated expenditure of 950,000,000*l.*, there is some 400,000,000*l.* which is not affected by a fall in prices?—Yes.

7584. That they are conventional prices to-day for certain services or commodities which do not decline with a decline in the prices of other commodities?—That is exactly what I mean.

7585. (*Sir W. H. Houldsworth.*) Do you consider that a temporary suspension, or a permanent suspension of the fall?—Well, the first two items, 150,000,000*l.*, are a very considerable proportion, seeing they are increasing year by year, that does not look as if there is any probability of a change for the better.

7586. (*Chairman.*) Perhaps we should get at it by going through the items. This 400,000,000*l.* you say,

in point of fact, shows no diminution, but, in certain items, shows an increase?—Absolutely.

7587. You say there is more money spent upon government?—I do, even per head; there is naturally more money spent as the nation grows, but there is more money spent per head.

7588. And a portion of the increase is due to the greater expenditure on education?—Certainly.

7589. (*Sir W. H. Houldsworth.*) That would be a permanent expenditure?—I should hardly call that a loss to the country.

7590. (*Chairman.*) But we are not talking about losses; one thing at a time. Then there are other items in which you detect an addition, such as the consumption of intoxicating liquors?—I suppose in connexion with Government, a very large portion is due to the increase in military and naval expenditure; very likely that would form a very large portion of the increase. I do not think it necessary to go into the separate points; I think the general argument to be drawn from the Government figures is this. That the Government, as the greatest purchaser of materials in this country, have never been able to show an advantage in their balance sheet out of this enormous fall in the commodities.

7591. But I mean other items, not the items of the Government. Other items, you say, show an absolute increase. I understood you to say that the charge for passenger traffic was larger?—I do not think that shows any increase except in the total results, not in the charge per mile.

7592. The cost of education; daily and weekly newspapers?—The cost of education shows an increase; there is no increase in the price of papers, as it would be in the price of papers themselves, but there has been no decrease. The penny postage stamp, the penny paper, they become standard things. There seems to be no fraction by which they can be altered, except they alter 50 per cent. to a halfpenny, which cannot very well be done.

7593. Do not the numbers of the papers go up and down?—That would be so in any circumstances, that does not affect the purchaser who pays a penny for his paper.

7594. Then you mean that a working man has so many shillings a week to spend, and in consequence of the fall in prices he is able to supply certain wants at a considerable reduction?—I think I have to say that in the paper later on, what he is able to supply.

7595. That would leave him a greater balance to spend upon other things?—It depends on whether his wages remain fixed.

7596. Assuming that in the first instance?—Certainly, if his wages remain at the old rate.

7597. And there might very well, therefore, be an increase in the apparent expenditure on other matters, due in fact to the fall in prices?—There might be, supposing there had been no fall in the wage rate.

7598. So that your argument of apparent permanence, or even an increase, of certain items of expenditure on the part of the working classes would not at all show that the working classes had not realised the benefit of a fall in prices?—My argument is that they have not realised it all round their expenditure; only on a portion of their expenditure. On food, for instance; they have realised some fall on food.

7599. On certain items of food they have realised it; on some other forms of expenditure they cannot realise it?—That is it.

7600. Because the conventional prices are fixed?—Yes.

7601. Do not they, in those forms of expenditure, realise it in the better supply of their wants, a better quality?—Well, I suppose the administration of affairs in the country is better; I do not dispute that local administration is decidedly better, but the fact remains that a man has to pay the same out of his salary for such charges.

7602. The increase of education?—Oh, in that respect I quite admit that the expenditure is wise

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expenditure, but it does affect his position, that these things have not cheapened to him. There may be better education, but it does not become more cheap in a pounds, shillings, and pence point of view.

7603. But a good many of these items are voluntary items of expenditure?—Quite so; there is the expenditure connected with drink and with tobacco, that is voluntary, but I do not think the cost of government is voluntary. The necessary local expenditure, the necessity for doctors and lawyers, and the education of the country, and the newspaper, I should take all these to be necessities, absolute necessities. The club, the union, the friendly society, I take those to be necessities, and when I tell you that the working classes in two single societies have 10,000,000*l.* saved for sick and funeral purposes, I think you will see that ultimately there is an enormous gain to the other sections of the people of this country. They relieve the rates enormously by means of such societies.

7604. Still I think there has been an increase in the actual payments to the clubs?—Oh, very much so, as I will show later on.

7605. That always might be attributable to the fact that a diminution of prices allowed the working man larger means to subscribe to the funds?—Yes; but it arises from the fact that there have been so many people out of work, that they have been obliged to double their subscriptions in many of the organizations.

7606. Then, your argument is, that the reduction, if any, in the cost of living, on the part of the working man is, in fact, confined to the balance of 550,000,000*l.*?—Yes.

7607. And that even there it is by no means proportionate to the fall in the wholesale prices?—That is so, and I wish here to state that from one of the witnesses, Mr. Sauerbeck, who has put in evidence as to the fall in prices, I gather that the estimated fall is 29 per cent.; but in connexion with the expenditure even upon food, the same tables will show that the expenditure, even if were absolutely realised exactly in the retail prices as in the wholesale prices, must not be taken to indicate a cheapening of 29 per cent. upon the food that goes into a house because of the variation of the fall in prices between meat, vegetables, and other foods. Meat constitutes a large portion of the expenditure, and upon that the fall has been least, only 12 to 13 per cent. That is given in Mr. Sauerbeck's tables, while the fall in corn is about 40 per cent., so that when you come to average the thing, it will not do to take the prices in the form of an average. You have to consider what proportion of the expenditure is in animal foods, and what proportion is in vegetable food, and taken in that way, the fall in the cost of living as shown in the wholesale prices is not more than 25 per cent., that is upon food. Upon what would be the consumption of a house distributed fairly according to prices, the fall would not be more than 25 per cent. on the wholesale prices.

7608. If you take the budget of the working classes, what would be the reduction in the cost of food?—Mr. David Chadwick read a paper before the British Association upon the fall in prices, and how far it affected the consumption of a family in cheapening the cost of living. He has done this work for the British Association for 30 or 40 years at different periods, and he has covered a great deal of ground in obtaining the matter; and his estimate is that between 1860 and 1887, the cheapening of the cost of living to a family of five persons is only 5 per cent., but I estimate the cheapening myself at 10 per cent. since 1874.

7609. (Mr. Barbour.) Does Mr. Chadwick assume that the family lives equally well at both periods?—He takes exactly the same proportions of each article. There is a table showing how much he allows of each kind, and what it costs, and this is taken from 52 centres; and I beg to put this paper in as the best evidence I can obtain as to the reduced cost of living, arising out of the fall in prices.

7610. (Sir T. Farrer.) I see in Mr. Chadwick's paper, remarks of this kind: He gives you the cost of butter. He says butter cost the same in 1887 as in 1839, namely, 1*s.* 1*d.* a pound; but butterine, or margarine, which is much used, can be obtained at about one half this price. Then he says again, coals and candles cost the same in 1887 as in 1839, but at present petroleum lamps are used instead of candles, and petroleum oil costs only about half the amount. Clothing is taken at 3*s.* in the two periods; but the quality of clothing is in many cases superior in 1887 to that of 1839. These are only instances of the same thing that was mentioned before, that a working man gets many things of a better quality. It is not fair to take only the same things, but to see what he gets altogether?—But I wish to observe that that is 1839, and he gives a very different estimate of the advantage to the working classes since 1859. It is a very long way back is 1839. Every one of those facts are in regard to changes in the cost of living, and I think that Mr. Chadwick's investigations have been very carefully made indeed. Mr. Chadwick is very well known as an accountant in London, and he took this subject up as a native of Manchester many years ago, and he has on frequent occasions given papers on this question.

7611. I think it might be well if I read you the last paragraph of Mr. Chadwick's paper, and ask whether you agree with it. "In my former review of the wages paid in 1859, as compared with 1839 I remarked, 'that in 1859 the low prices of provisions and clothing, together with the high rate of wages and the facilities for education and mental culture, have placed within the reach of the working classes more physical comforts, and the means of obtaining more social and intellectual enjoyment than at any previous period.' I venture to think that in 1887 it is a matter for congratulation, that all those advantages have been further increased since 1859, when the above was written; and that although it may be a question whether wages have received more or less than an adequate share of the enormous increase of wealth which has been the result of our trade and commerce during the last fifty years, it is satisfactory to find that the improvement in the position of the working classes has been so great, and that it is likely to be generally permanent, and in many cases, progressive." That is the conclusion of Mr. Chadwick's paper?—I entirely agree with Mr. Chadwick as to the improved condition of the working classes since 1839, and I entirely agree as to the improvement that took place from 1859 up to 1874; but I think I should be able to show that a very considerable check has taken place since that time.

7612. (Chairman.) Well, but I understood you to say, that from 1874, down to the present time, there has been a greater decline in the cost of living on the part of the working classes, than from 1859 down to this time?—Certainly, I agree to that.

7613. So that the latter portion has been more beneficial?—Provided that their employment had been continuous, and that their wages had remained the same, those are the two conditions.

7614. I suppose you allow as a general principle that the margin of saving to the working classes is not considerable?—Well, if you take all their various methods of saving, of course, I only speak of Lancashire, for I am not much acquainted with the working classes outside of Lancashire, looking at their earnings, I think their savings are very considerable.

7615. If the necessary cost of living declined and wages remained the same, so that there was a greater margin left in the hands of the working man, would you say that a large portion of that margin would be saved or would it be spent in supplying other wants not hitherto gratified?—Well, I have been an observer and taken an active part in social and political movements since 1857, and I am very strongly of opinion that the progress in the working classes, towards

steady industry and thrift, and sober habits has been enormous within the last thirty years.

7616. That is scarcely an answer to my question. Supposing wages remained the same; take, for example, a family with 30s. a week, and that the necessary cost of living, of supplying the primary wants—food and clothing and house-rent—fell 4s. or 5s. a week, would the 4s. or 5s. be in large part saved, or would they be devoted to the supply of wants hitherto unsupplied?—Well, my own opinion is that a very considerable proportion of such saving would be spent in improving their means of living and their surroundings.

7617. And comparing a working man of the day with his family with the same man of 20, or still more, 40 years ago, he has many more wants supplied than were then supplied?—I have no doubt he has many other wants supplied, and he works a deal harder. I am speaking now of the cotton districts. Of course men can work better when they are fed better.

7618. He puts more energy into his work?—He has a better temper to begin with. As a considerable employer of labour I know that, but, in addition, a considerable amount of work can be got out of a man when he has plenty of good food put into him.

7619. You do not mean he works a longer time?—He is more effective while he is there; he works harder.

7620. He works harder by working with more energy while he is at it?—I might just say this to show the effect of it in connexion with the last shortening of the hours of labour in factories. I have been an employer since 1860. The last shortening of the hours of labour in factories was 2½ hours. It is quite certain that in less than 12 months afterwards there was not the smallest reduction of produce resulting from that shortening, even with the same machinery. I do not say that that is a principle that could be very largely extended. Of course either way it might be a fault, but it is a fact that I can record from absolute observation.

7621–2. Can you tell us what reductions have taken place in the wages of our artisans?—Before I answer that question, I am rather anxious to show that the ordinary methods of gauging the condition of the country by statistics are utterly fallacious so far as regards employment. You see in the first page of my rough statement the pauper and outdoor relief returns, the volume of imports and exports, and the property and income-tax returns. I take it that these three methods of testing the progress of the country have been very frequently put before us, and I think, so far as employment is concerned, they are extremely fallacious. But I will follow out your desire, only I do not wish these three points to be omitted; I think they are extremely important. I have taken wages and employment or want of employment together; I may say that I have here the original returns upon which this transcript that I am going to quote from is based. I could give the original written returns from the various authorities that I have taken. I may also, say, before I make any remarks upon this part of the question, that a great many of the trades unions will not supply returns to anybody, simply because the position in which they are placed is so barren and so bare, that they do not want anybody to know their position, even their friends; and I may also say, in further explanation, that I have taken the returns, both from employers as well as from the working men's secretaries, and wherever I have got a return from an employer's secretary, that the return states the case worse for employment and wages than even the operative secretaries themselves. The first return I have is from Mr. Samuel Andrew, the Secretary of the Oldham Master Cotton Spinners' Association. It is a return concerning both wages and employment. Since 1874, and wherever these returns apply, they are the changes that have taken place since 1874, so far as the investigation of the numbers of the unemployed, and the amount paid for relief by the trades societies. As data I have taken the years 1871, 1872, 1873, 1874,

and 1875, as representing a period that was not affected by the change in currency, and I have taken the years 1882, 1883, 1884, 1885, and 1886, as the last that could be obtained. Now, Oldham represents one-fourth of the spinning trade. It is the chief town for cotton spinning, and it governs all other districts in medium counts. Mr. Andrew sums up his return by saying in 1885 the reduction of 5 per cent. was made after a strike of 13 weeks, and the present standard list is therefore subject to a reduction of 15 per cent. That is since 1874, 15 per cent. reduction. That is the position of Oldham to-day.

7623. It is piece-work, not time?—Nearly every wage in the cotton industry is paid by piece.

7624. (*Sir T. Farrer.*) Is that an absolute reduction? Is it in any way compensated by an increased quantity of production, or an increased speed of production?—I will show later on that that does not benefit the people at all, when we consider this question of employment in the broad.

7625. (*Mr. Chaplin.*) The first return comes to a reduction of 15 per cent.?—15 per cent., and the final sentence in the return is as follows:—"I estimate that the loss of time through strikes, short time, and stoppages have amounted to about one month per year since 1876." Now that is 8½ per cent.

7626. (*Sir T. Farrer.*) Does he say what it amounted to in the previous period?—Well, he does not, because I only asked him since 1874. But I can tell you that I have known the cotton trade since 1851. Well, there was never any trouble about stopping only during the cotton famine up to 1874, and the strikes are themselves a view of this state of affairs. The strikes are against the reductions of wages. There has been no body of men who have ever worked for 25 years on the one rate of wages with less variations than the great cotton trade from 1850 to 1875, and of course I can give you authority because I can give you the lists. I can show how they worked without any change practically in wages, for 25 years, through all the prosperous times, and then when we came to these bad times there is a never-ending fight against reductions. These conflicts prove how times have changed.

7627. Did the rate of wages increase during that earlier period?—Well, there have been a great many statements made as to the changed condition of wages of factory operatives. I as a boy of 15 paid 450 workpeople every week, and I can safely say that in 1853 I was paying as much money to a four-loom weaver as I am paying to-day, and also for three or two-loom weavers. In 1853 on the average in Lancashire a weaver received as much as he does to-day. I am perfectly prepared to prove that from experience, and to bring other men who occupied the same position as I did in other mills, to make the same statements.

7628. Did wages rise from 1853 to 1875?—There was a rise of wages in this sense, that whilst the average rate of wages in payment of so much work done was practically the same, there was a gradual increase in the quantity produced, so that I estimate that up to about 1873 or 1874 there was a gradual change taking place through increased speed, and the better general condition of the working classes making them more fit for work by about 16 per cent. I used to write considerably on the cotton trade, and I gave that estimate at the time that I was a monometallist, so that it has not been made for this case.

7629. (*Mr. Barbour.*) Has the effectiveness of the workmen gone on since 1874 increasing?—I daresay the effectiveness of the machinery has gone on increasing, so that the workman turns out more work.

7630. Does he get higher money wages?—He does not get higher money wages than he got in 1874, but the fall is not as shown by this return. He turns out more work; but then if you take it in that way, it is very important indeed to consider that the population in Lancashire is growing four times as fast as employment; that is very important, and I venture to say that I will prove that position absolutely.

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7631. Has there been any fall in actual money wages since 1874?—Yes, 15 per cent. on the rate.

7632. There has been a fall in the actual sum received by the workmen?—I should say the same; I think half the sum stated, viz., $7\frac{1}{2}$ per cent., the actual fall to the spinners and weavers I should consider about $7\frac{1}{2}$ per cent. in money actually paid.

7633. (*Chairman.*) There has been a diminution in consequence of the diminution of the price of piece-work of 15 per cent; but there has been an increase in the efficiency, whereby you get back $7\frac{1}{2}$ per cent.?—Precisely. I consider that a fair estimate from a practical knowledge of the trade.

7634. (*Mr. Birch.*) But 1874 was the very highest price?—Not of labour in the cotton trade. We had no change in the cotton trade from 1868 to 1874. You need not depend upon me; you might see Professor Munroe's paper read before the British Association, which gives the changes of the wage rate from 17th August 1853, so far as the cotton trade is concerned.

7635. (*Chairman.*) You do not allow anything to be affected before 1874, in consequence of stoppages or strikes?—Well, I say, excepting of course the cotton famine, there had been very little disturbance in the cotton districts for 25 years, and so far as employment was concerned, it was abundant up to 1874.

7636. Was there not a great strike at Preston?—That was in 1853; and it was in 1853 when this list of wages was settled. That was a strike of weavers, and I refer to the time after the 40 weeks' strike in Preston and up to 1874.

7637. (*Sir T. Farrer.*) Do you know at all what the proportion of yarn that is spun in Lancashire, and used at home is to the yarn sent abroad?—I should think about five-sixths, not more. You may take it roundly to be that one-sixth is exported.

7638. (*Chairman.*) I think Oldham is the place where the spinning has been conducted by limited companies in which the operatives are shareholders?—A large number of them; the shares in the mills, are from 1*l.* to 5*l.* or 10*l.* I have a list of the Oldham mills, which states their position at present in the market, and I do not know anything more disastrous to look at. Nothing. I should think the working people in South-east Lancashire must have lost 15 or 20 million pounds in connexion with the cotton spinning industry during the last 10 years.

7639. (*Sir T. Farrer.*) On investments in these mills?—On investments in these mills and in cottage property.

7640. (*Chairman.*) You mean the present selling prices of these companies, compared with what was put into them?—Not only the present selling price; they are nearly all at a discount, some of them at a very considerable discount; but the average yearly dividends are only about 1 per cent. during 10 years; and during this time some very large dividends have been paid in Bombay out of the work that should be done in Oldham, because they are very much better and cheaper producers in Oldham than in Bombay.

7641. Has the principle of association been also adopted in the matter of supplies, domestic and social?—Enormously. One single store alone has over 8,000 members, and they carry on very great work for the benefit of the people of the district, so far as education and other such matters are concerned.

7642. And they supply the articles required for domestic use?—Yes, and they take a dividend, and they give a dividend to the customers as well.

7643. In respect to the supply so obtained, a very much greater reduction of price would be secured?—A very much larger reduction would go to the artisan who buys through the co-operative store. That is one reason why Lancashire has stood so well through this period of pressure among the working classes, because there are so many of these stores.

7644. Well, can you give any estimate of the proportion of operatives in Oldham who so reap the benefit of reduction of prices through these associations?—I do not know that I could give an estimate, but I should think, perhaps, a full fourth they will

not get the same prices as a wholesale firm. There is the expense of buying and distributing. You cannot reduce retail prices exactly as wholesale prices. It is quite clear to anybody when the prices fall that the percentage of expense on the turn over becomes greater.

7645-6. You take Oldham as a pattern of cotton spinning?—That town represents half the spinning trade in medium counts. This Second Report is a report made by Mr. John Fielding, Secretary of the Operatives Cotton Spinners' Provincial Association, Bolton:—"Wages, or rather prices, in every department of a spinning mill have been reduced 15 per cent. since 1874, and stand at that point to-day. Generally speaking, the mills have been kept on full time during this period, except in 1879, 1880, and 1886, when short time and total stoppage were resorted to in a great many instances. Until 1880, none but loafers need be out of work many weeks together, but since then, work has gradually been more difficult to obtain, and it is quite common for a spinner to be without employment 12, 18, and even 24 months at a spell. Work was never so bad to find as at present." Bolton is the chief centre of fine spinning. It governs practically the whole of the fine spinning trade.

7647. (*Mr. Montagu.*) Is it not the fact that the coarse spinners are affected by Indian competition?—This is not affected by Indian competition, but by the stagnation of trade only.

7648. (*Mr. Chaplin.*) Does this return refer to Bolton alone?—Bolton alone, but is representative of Chorley, Preston, and all the fine-spinning centres.

7649. (*Sir T. Farrer.*) Would Bolton compete with Bombay?—No.

7650. (*Chairman.*) And in respect to Bolton, you get the same figure, 15 per cent. reduction in piece-price?—Yes.

7651. And there you have a similar recovery in efficiency?—Yes; there has been a great improvement in fact. These bad times have been in themselves a strong incentive to all improvements.

7652. (*Sir T. Farrer.*) That is always the case?—Certainly; adversity is the mother of invention.

7653. (*Chairman.*) Your correspondent does not give any estimate of the annual loss?—No, I come next to the coarse spinning, which is the spinning most affected, the heavy coarse counts. The mills spinning coarse counts of yarn are so scattered about in every little village that there is scarcely any large town from which a return could be had, of any value as representative of the state of this branch of spinning. But I may state that no branch of the cotton trade has suffered more. Mills engaged in this business can be had at almost any price. You can have a mill to-day, and I can sell a mill to-day at one-twentieth part of its cost. That is a mill engaged in the manufacture of these counts, and working now.

7654. What age would the mill be?—A good mill in good working order at the present time. "The valleys running through Rossendale, Todmorden, and Hebden Bridge have, with rare exceptions, been practically ruined, so far as capital is concerned, and, in addition, the want of employment has been most severely felt during the last 12 years throughout these districts." In fact, it is as if a simoon had swept over these valleys. You can see mill after mill with the roof off, never having been turned round for years; and as to the state of the operatives, there are some of the finest operatives in the kingdom in these valleys, they have had to disperse portions of their families in all directions.

7655. Then has the population diminished?—Yes, I have no doubt, if you get the population returns of the whole of the district from Waterfoot, Bacup, up to Todmorden and Hebden Bridge. Perhaps the wealthiest firm of cotton manufacturers in the world is at Todmorden, and with the exception of one other firm in Todmorden, every other concern has been swept away, has had to compound or go out of business. Some of them have compounded two or three

times; this refers to firms who were in business before 1874.

7656. And where have the operatives dispersed to?—I do not say the whole of these towns have dispersed, or even a considerable proportion. There has been no growth there through disastrous trade.

7657. (*Mr. Barbour.*) When the trade is destroyed, do the operatives emigrate? Have those who have been permanently thrown out of employment emigrated?—It is a matter of this kind, they go and press on the bigger towns for employment and return home at the week's end. I do not think there is any very great amount of emigration to America, because this very question is affecting America as well as us. There has been no inducement to go to Fall River. I read the American returns regularly, and they are worse off than we are, and through the same cause.

7658. Do you know whether wages have risen or fallen there?—They have fallen in America. There have been plenty of strikes, and the Knights of Labour are simply the symptom of this difficulty in America.

7659. (*Chairman.*) But with respect to those coarser cotton spinners, you say that their occupation has gone for a large proportion of them in Todmorden and about there?—I can say this safely. I am perfectly certain that to India, of coarse fabrics, we do not export per annum as much in one year as we did in three days prior to 1868 and that we do not export of coarse heavy fabrics as much as we used to.

7660. Of course, that does not imply a corresponding reduction of production here?—No; but it implies this, that a very large branch of trade has disappeared.

7661. And the workmen, what has become of them?—Well, I say, of course to meet a crisis like this, employers, in the first place, try to adapt the machinery to other things. We have a mill in that district, and we have gone entirely out of the coarse trade altogether. We have tried four or five times to find a fresh trade for that mill, and we have at last succeeded in the manufacture of belting, for driving purposes, woven belting. We never drew one shilling of rent out of that mill when we let it for 13 years at 600*l.* a year. The first difficulty in those districts, so far as the Indian trade was concerned, began with the import duty. The Government managed to half destroy the trade with the Indian import duty, and we thought when we were getting the Indian import duty off, we were likely to get our trade back again; but, unfortunately, the silver difficulty gave three times as much protection to the Bombay mills.

7662. (*Sir T. Farrer.*) The import duty was not a new thing?—It was first levied about 1861. It took a few years for the capitalist and the native to see that he had offered him 40 per cent. on his capital to build a mill in Bombay. That duty of 5 per cent. was equal to a 40 per cent. bonus on the capital required to carry on productive operations in coarse goods.

7663. (*Chairman.*) That is past history now?—Yes; but I wish simply to correct the impression, if any arises, that because we began to be very bad in 1872 in that district, that, therefore, the cause arises now outside the silver question. That suffering had begun from another cause of a similar character in its effects on our trade.

7664. (*Sir T. Farrer.*) When was the duty taken off?—In 1878 upon all coarse goods. The duty was taken off at twice. It was taken off goods that Indian mills could weave first, and then we in Lancashire made up shirtings to 30's and 40's; after that, the duty became comparatively unproductive, and they abolished the rest.

7665. (*Chairman.*) Your evidence goes to this, that in spite of the transformation of industry, and the introduction of new industries, the population has declined?—The population of that district is either stationary, or has declined. Taking the whole of the district, beginning from and not including Haslingden, as the key to the Rossendale district, right through the valleys to Todmorden and Hebden Bridge, as well as

in some corners adjacent to Yorkshire; in all those valleys, industry is absolutely checked; and from that I should conclude the growth of population has been checked.

7666. What would be the estimated area you speak of?—Well, it is a hilly district, along the trough of the valleys within the hills, and I daresay, as far as width is concerned, it is very narrow. It is a miniature Switzerland; but I daresay it extends 20 miles running along the valleys.

7667. The question of the stationary or declining character of the population could be easily tested, I think?—Yes, I think you could test that very easily. Of course, I have not gone into the census very particularly for these districts.

7668. (*Sir T. Farrer.*) Then, has the manufacture of these coarse yarns actually died out?—No; you see the largest customer we had, perhaps, for coarse yarns was India, and for coarse goods we have other markets. For instance, we make for South America, and, to some extent, we have been compensated by a very large opening up of Egypt since 1868. The Egyptian trade has done a very fair share in compensating us for the loss of the Indian trade in coarse goods, but that is simply taking the share of trade that is going, it is not providing for a growing population and we need constant expansion.

7669. So that the absolute export has not declined?—Oh, you never see the exports divided into classes. It is only the total number of yards, so that you could not possibly tell that.

7670. (*Chairman.*) Does that exhaust what you have to say about cotton spinning?—That exhausts cotton spinning.

7671. And are similar facts true of cotton weaving?—I might just say that the same state of the case goes precisely through, only, I think, if anything, weaving has been worse than spinning. They have alternated; sometimes weaving has been better than spinning, and sometimes spinning has been better than weaving. But, taking the last 12 years, and speaking with absolute knowledge of all the weaving centres, I will only briefly affirm that the weaving branch is exactly what the spinning branch is here described. I will read you my own report, if you like; it affects this very district that India is competing with.

7672. (*Sir T. Farrer.*) Is it the same story with respect to weaving, that coarse business is worse off than fine?—It is the same thing.

7673. (*Chairman.*) Will you read your report?—“Having been unable to obtain from any reliable authority a survey of these districts so far as the employment of people in the cotton trade since 1874 is concerned, I may state that I have had considerable business relations with these centres. For a considerable time prior to 1876, these districts, which include Rawtenstall, Newchurch, Crawshaw-booth, Bacup, Walsden, Littleborough, Todmorden, and Hebden Bridge, had suffered somewhat heavily from the tariff imposed by the Indian Government upon cotton goods entering that dependency. It was, in fact, mainly through the outcry of the above districts, that the Government of India were led to abolish, about the year 1878, the import duty of all cotton goods made from yarns below 30's and 30's, it being found that the Indian (Bombay) mills were practically enjoying a protection against the above districts, the principal manufacture carried on being T cloths, long cloths, domestics, or what are known as heavy fabrics; it was unfortunate for them that the abolition of the duty referred to, only came as silver by depreciation in terms of gold took the place of this duty forming a much larger productive duty to the new Bombay mills. These districts have gone from bad to worse, and so destructive have been the losses for the last 10 or 12 years, that there is scarcely an old-established concern that has not been swept out of the trade, whilst mills have been standing idle by the score. The population spread about in all the narrow valleys in villages, and hamlets, have either

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"dispersed to other centres, or are existing very precariously. The wages rate has followed the general course of the Blackburn district, which practically governs two-thirds of all the looms in Lancashire, Blackburn itself possessing between one-eighth and one-ninth of all the looms in the cotton trade. In the district circumscribed by the sweep of a radius five miles in length from the centre of Blackburn would be found more than half of the power looms engaged in our cotton trade." I have only one more memorandum on the cotton trade. It is from a salesman engaged in the cotton trade, and he wished to state to me that he used to sell for a mill that spun yarn entirely for Japan, and he wrote to tell me why it was closed. I will read the letter:—"As bearing on the currency question, in which I know you take a deep interest, I may mention that about 15 years ago I used to sell amongst other goods the production of a throstle spinning mill in Preston. About nine years ago the price obtainable after a gradual fall, became so low, that it was necessary to stop the mill, and it has remained closed ever since." I do not think it is necessary to read any more of the letter, in which he tells distinctly that it is nothing but the silver question that has prevented the conduct of that business. The next are the subsidiary branches of the cotton trade, and that I will not trouble you with. They have to tell you the same story, only a little bit worse.

7674. (*Sir T. Farrer*.) And all attributing it to currency?—These men know nothing at all about it. My own contention is that it is the silver question. At present I am accumulating my facts. Now I begin with where we can get at some figures absolutely. My first report is from Mr. Robert Austin of the Amalgamated Society of Engineers. I look upon him as the most reliable man connected with the engineering trade. Their society in the years 1871, 1872, 1873, 1874, and 1875, had respectively 510, 324, 465, 674, and 1,076 men unemployed on their books. In the year 1882 they had 870; in 1883, 1,215; 1884, 2,438; 1885, 3,206; 1886, 3,710. The amount paid in relieving the unemployed, and I wish to observe that there is nothing included appertaining to sick funds, accidents, or anything, but simply the unemployed. In 1871 the expenditure was 12,357*l.*; 1872, 15,377*l.*; 1873, 15,562*l.*; 1874, 21,093*l.*; 1875, 31,560*l.*; in 1882 the expenditure was 23,043*l.*; 1883, 32,252*l.*; 1884, 62,310*l.*; 1885, 78,669*l.*; 1886, 86,460*l.* Now, I think it will be understood that their contributions are growing rather larger to their trades unions; this is only one of the iron trades.

7675. Do you suppose these sums are paid out of annual subscriptions, or out of capital?—They are paid mainly out of their annual subscriptions. Of course, I do not know the conditions of all the societies, but they have a plan of this sort in working-class societies, that if an extra strain comes upon them they double the contributions in order to prevent their finances giving way.

7676. (*Chairman*.) Well now, what is the general proportion; is it double?—The amount is about two and a half times.

7677. And what is the proportion of members during the time?—The number of members in 1871 was 37,790. It reached 44,000 the fifth year. The average would be 42,300, and the average of the last five years would be 50,600.

7678. (*Sir T. Farrer*.) Have you got figures of this sort for any earlier period?—No; there are such figures, but I had a very great amount of work getting these figures at all from some of the societies. But I may say this, that my selecting these two periods of five years is entirely to show the change that has taken place concurrently with the changes that took place in the monetary arrangements of Europe in 1873 and 1874.

7679. I quite see the reason; only it might be observed that that earlier period was a period of

great inflation and prosperity in trade?—Well, I can only give my own experience, that I have lived for years in the cotton districts, when if you had said five words to a man he would have put on his coat and left his work. It is a very different state of things now.

7680. (*Chairman*.) We are dealing at present with the facts. The facts which you put before us now are these: that the number of members of the association has increased about 20 per cent., and the amount spent on the relief of the unemployed has increased 225 per cent.?—That is practically the position. The next very large society is the Associated Iron Moulders of Scotland. Summarizing the figures, the first period gives an average of 4,500 out of employment, and the second period an average of 5,600. The first period is 1871 to 1875, and the second period is 1882 to 1886. The average payments for relief were 3,400*l.* a year in the first period, and in the second period, 15,000*l.* In the second period a man might be very much longer at a spell on the books. In one case you have a temporary period out of work, and in another case you have a long period out of work, so that their case is very much like the paupers. One man may be out of work nine or ten months, and another may be only receiving relief for a single week, and each is counted a case.

7681. What is the number of members during the respective periods?—I cannot give that for the moment, but this is the return of Mr. Joseph M. Jack, secretary of the society, and he says at the end of his return:—"The outlook is certainly for diminishing chances of employment, continuity (that is, regularity of work) being only known in a limited number of cases in each shop." Now steady employment is vitally important to get effective labour.

7682. Have you any notion yourself as to the proportion of iron moulders who are in the union?—Outside the cotton trade I could not give you any special information worth anything. I have to depend upon the authorities in these trades, and in every case I think I have taken the very best men in the respective trades. I think I could say this, that in the skilled industries, as well as the mechanical and building trades, you may take it that the great bulk of these men are in the unions. They find it to be an enormous advantage to be in a union. If a man is out of work in Swansea and applies to his union, they refer all over the kingdom in order to find him work, but a non-unionist or an unskilled artisan is in a miserable position in times like the present. The next is the report of the boilermakers and iron shipbuilders, by Mr. R. Knight, general secretary. I cannot give you the five years for this society. I wish to say I could only get from Mr. Knight the three years, 1873, 1874, and 1875. I suppose his returns do not go further back. His returns of unemployed were:—

1873	-	-	89
1874	-	-	223
1875	-	-	667
1882	-	-	170
1883	-	-	115
1884	-	-	2,946
1885	-	-	7,197
1886	-	-	6,480

7683. Can you give any explanation of the extreme discrepancy between those two years, 1883 and 1884?—Yes, I can. Of course about 1882 and 1883 a very great change took place in the construction of ships, and the development of certain kinds of traffic for live cattle and frozen meat and thus caused a great amount of shipping to be specially built. Then we have the reaction here in these figures.

7684. (*Sir T. Farrer*.) It is notorious that there was a great inflation of the shipping trade at that time, was there not, and a great subsequent relapse?—Well, I should only say this, if it had not been for the inflation of the shipping trade at that time we should have been in a serious position now

because the freights at which they carry for us now are a principal means to enable us to carry on business at all with some of our markets. I will give the expense of the comparative years, where I have got the employment. In 1873 the expenditure was 1,469*l.*, in 1874, 4,175*l.*, and in 1875, 16,635*l.* In 1884 the expenditure was 62,764*l.*, in 1885, 46,514*l.*, and in 1886, 38,966*l.* Mr. Knight, who is rather an intelligent man, says:—"As our trade embraces so many classes of work, and extends over the United Kingdom, I could not give the average rate (of wages) paid, but I am certain that there has not been any increase during the last 12 years in day rates. A large proportion of our work is done by the piece, and the prices fluctuate. In almost all the shipbuilding districts in England the prices are regulated by committees of our association and the employers' association, and no alteration is made on either side without a month's notice, when the question is again dealt with by the two bodies." Then there is the Iron Founders' Society of England. The report of Mr. William Henry Hey, the secretary of that society, I think is worth reading. The average out of employment is 410 in 1871 to 1875 inclusive. The average for the second period is 940. The amount of relief in the first case is 7,200*l.*, and in the second case, 20,000*l.* The effect upon the earnings of the men, that Mr. Hey gives in his return, is to reduce by non-employment, the average over the whole of the society from a wage of 26*s.* 3*d.* to 22*s.* 3*d.* I think there are some very similar reports of the iron trade which I will pass over, because they do not extend over a large body of men. I have a general report from Sheffield from Mr. S. Uttley, on the state of the trade in Sheffield. He does not give any figures, but he says the position of affairs is so serious that their treasury was empty in 1883, and they had to lock up the cash-box. They had no further money to assist their members with, and it is useless to give returns. They have ceased to give relief; they have no means, their funds are exhausted.

7685. (*Mr. Chaplin.*) What society is that?—The file cutters. The report of Mr. Day, the secretary of the Britannia metalsmiths, concludes by saying that, "in 1885, our trade was even more depressed than in the previous year, 1886; as you will see by the return of unemployed, there are 80 for whom employment cannot be found. Still the depression exists with almost equal severity with the 75 per cent. now in employment, who, although considered in work, in many cases barely exist." Those who are in work, many of them are only working part time. I have the next report for the trades of Wolverhampton and district, from Mr. W. F. Mee, the secretary to the trades councils, Wolverhampton.

7686. (*Chairman.*) Does that cover all the trades in Wolverhampton?—It does, practically. He gives a general description of how bad they are first, and then he goes on to say that "Wages have been reduced in the building trades 4*s.* 6*d.* per week during the last 10 years." That is a considerable reduction. He says, "In the tin-plate trades wages have been reduced by a process of discount;" that is, taking a discount of wages, so much per cent. off list prices of work; "locksmiths are the same, only the trade is worse. The average wages of a locksmith will not exceed from 12*s.* to 14*s.* per week, and not that for 52 weeks in the year." In the coal and iron trades things are worse now than they ever were, as far as wages goes. Well, of course I need not mention that the case of the chain-makers, which is worse than slavery. It is as far as wages go about 6*s.* or 8*s.* a week for men and women; and the nail workers in the district, embodying about 30,000 people. Putting these two trades together, the average wages for a long day's work is about 1*s.* to 13*d.* and 14*d.* a day. He says, "In the iron trade, mill-men, who roll the iron into sheets for galvanising, are about the best off for trade, but I believe their wages are regulated by either the selling prices of iron, or by the puddlers' wages."

Then he goes on to compositors. "Compositors have had a reduction of about 10 per cent. during the last two years. Shoemakers are pretty fair for trade, but prices have gone down. I cannot give you any figures of the number employed in the various trades, as I have no means of obtaining the statistics in the limit of time." I have also a report from Alexander Wilkie, of the Associated Shipwrights' Society, Glasgow, and one from the Steam-engine Makers' Society, but I will not go through those, as they are practically of the same kind as the previous iron and shipbuilding reports given. They just confirm about the same position. The report of Mr. G. D. Kelly of the Manchester and Salford Trades Council upon the state of trade and employment in Stoke, Burslem, Dunstall, Hanley, Shelton, and the Potteries generally, is a very short report. "Trade is better now than it has been for the past five years; but owing to changes in the patterns or designs the work is more difficult to perform, the work-people cannot earn as much money now as a few years back, the difference being from 15 to 20 per cent. less in their earnings. There are employed in the trade about 30,000 persons, including men, women, and children. The district has a population of about 150,000. The work is nearly (if not quite) all paid by piece. The earnings of the men range from 18*s.* to 30*s.* per week, and except in the case of a very small number indeed, never exceed 30*s.* Those engaged on sanitary appliances get a little more than the ordinary prices, and therefore make a little more money. The number of unemployed is far in excess of what it was 10 years back, and although it is not so bad, the number is increasing. There are also a considerable number on short time. This information (in greater part) I obtained from a member of the Burslem School Board. It applies to the principal branches of the pottery trade." I wish here to state, lest I forget, that in the cotton trade every operative in 1884 was using as much as two and a half times as much cotton as every operative in 1834, and that such important changes render an estimate of the numbers employed simply from a growth of imported cotton very unreliable.

7687. I suppose when he began his statement by saying that trade is better this year than it was in the previous year, he meant to say there was more employment going?—Perhaps so. I am giving the report verbatim. The operatives' secretary wanted to put it more in favour of the position than against it.

7688. There seems a little inconsistency between his first sentence and his last?—He says there is a considerable number on short time. Now, I wish to say with regard to the potteries, that the inspector of works for that district—I have not been able to get the report, but I read his report some time ago—states in his report to the Factory Inspectors' Department that there are young persons in the potteries who have been so accustomed to work four days a week for the last 10 years that they really began to believe that four days a week is a proper week's work. I have also a very elaborate report here upon the state of Birmingham. It would take a long time to go through it, so I will put it in.

7689. Who is the reporter?—It is a report by a member of the Birmingham Town Council. He will not allow his name to be used as yet; but it is a very able report, and every trade is very carefully gone into.

7690. Is it precise in its statement of facts?—Yes, it is very precise; and it shows the state of the workers in Birmingham to be very bad indeed.

7691. Well, what is the next branch?—There is another important trade; that is, the coal miners. The loss in wages since 1874 to the coal miners is 14,000,000*l.* a year. Of course I know all about the high price of 1874.

7692. (*Mr. Barbour.*) Do you mean the loss per year?—The loss per annum. But I have under-

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stated the amount. You cannot get a return from any of the principal leaders of the coal trade, such as those that are in the House of Commons. They seemingly do not want to explain how badly they are situated.

7693. (*Chairman.*) How do you get your 14,000,000*l.*?—Well, there are 381,000 workpeople, and they have lost 1*l.* a week, that is 19,000,000*l.*

7694. (*Sir T. Farrer.*) You do not compare it with any previous period, 1860 for instance, or 1850?—Yes, I do. I say that there is 7,000,000*l.* per annum under a normal healthy period, say between 1860 and 1868.

7695. (*Mr. Montagu.*) The loss is 10*s.* a week below the normal period?—Yes, about that.

7696. (*Mr. Barbour.*) I have seen it stated that each miner turns out more coal than used to be the case?—Certainly; notwithstanding that he gets less money per week. The condition of the mining population of this country is simply deplorable.

7697. (*Mr. Chaplin.*) What is the percentage of loss of wages between to-day and what you have described as the normal time?—Twenty-five per cent. I have four returns from working men, the secretaries of different districts, and I have never had more difficulty to obtain information about any subject than I have had to get at the facts about the coal miners and their wages.

7698. (*Chairman.*) You mean to say that the normal rate was 2*l.* a week and is now 30*s.*?—The normal rate would be 28*s.* to 30*s.*; it is now less than 20*s.*

7699. You mean the average rate between 1858 and 1868 was 28*s.* a week?—From 1858 to 1868; and the average now is from 18*s.* to 20*s.* I will give you the reports of the men themselves; they are very short.

7700. Before you go into that, have you any figures establishing the first statement, that the average wages were 28*s.* during these ten years?—I have not, but I will undertake to bring the rate. I am only giving it from my knowledge, living near the coal centres, and knowing pretty well from a general impression how the miners lived. The report of Mr. John Weir, of the Fife and Clackmannan

Miners' Association, says, "In 1874 our men were "earning between 6*s.* and 7*s.* per day. At present "they are only getting between 3*s.* and 4*s.* I could "not venture a comparative statement as to employ- "ment." The report of Mr. John Nixon, from Newcastle, says, "I beg to inform you that the wages "in Northumberland are at present (1887) 50 per "cent. lower than they were in 1874. In 1874 the "men were fully employed. In 1886 we paid the "men out of work, 9,518*l.*" The managing director of a large colliery in South Yorkshire estimates the reduction from 1873 to 1878 in South Yorkshire at 57½ per cent., and they "declined to the same extent "during the years 1874 to 1878; and probably the wage "rate is at present 10 to 20 per cent. below the wage "rate of 1871," which I should take to have been the normal rate previously. Then I have a report from the Derbyshire Miners' Association, from Mr. James Haslam. He says, "I will do my best to "answer the two questions contained in the same, "but have only very imperfect data to go upon, still "I shall be approximately right. The wages re- "ceived to-day are very little, if any, more than half "what they were in 1874, and the time worked is "considerably worse on the average, I am sorry that "I cannot give you the exact figures, but we have "never been able to establish a local *bureau* of "information although I have tried continually to "do so." Now, I conclude my observations on these reports by a statement from Mr. Robert Neill, of the firm of R. Neill and Sons, perhaps one of the largest master builders in this Kingdom, and the Chairman of the Master Builders' Association of Great Britain. He estimates the reduction of wages in the building trades at a 1*d.* per hour since 1874. One penny per hour is about 1½ per cent.; and he winds up a very short report by saying that the outlook for the future of the building trades is very quiet. Now, I know that the building trades are the last trades to respond to a depression in the producing trades, and that building may go on for years comparatively well employed before the effect of the destruction of capital in the producing trades, such as iron and cotton and woollen, is felt; whatever may be done, the building trades have a very bad time before them in this country.

The witness withdrew.

Adjourned till Monday.

THIRTY-THIRD DAY.

Monday, 7th November 1887.

PRESENT :

THE RIGHT HON. LORD HERSCHELL, the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.
SIR T. H. FARRER, Bart.

MR. C. W. FREMANTLE, C.B.
MR. S. MONTAGU, M.P., and

MR. GEO. H. MURRAY, *Secretary.*

Mr. WILLIAM FOWLER called and examined.

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7701. (*Chairman.*) You have given considerable attention to the subject with which this Commission has to deal?—Yes, I have.

7702. I believe you have written upon some branches of it?—I have written a paper which I call "Appreciation of Gold."

7703. Then we will take that branch of the question first, the suggestion that owing to a diminished supply of gold, and a consequent contraction of the currency,

prices have fallen, and commerce has suffered. What have you to say with regard to that?—Well, I should like to make one preliminary observation which, I think, is very important, as bearing on the whole discussion. I absolutely deny that there is a scarcity of gold, and I say that to assume that there is a scarcity of gold because prices have fallen is to beg the whole question at issue. That is the main contention that I think we ought to consider in the first

place. If I could establish that there is no scarcity of gold, a great deal of our talk might come to an end.

7704. I understand you to mean that prices may have fallen, either on account of some change in the relation of the commodities to gold, or some change in the relation of gold to the commodities, and so far as prices have fallen you think that the evidence points to the former rather than the latter cause?—Yes, I say that there have been enormous changes, during the time that I have lived, at any rate, in the means of production, and in the facility of distribution of products all over the world; changes so enormous and unprecedented, that it is difficult to measure them; and, I think, if you take any article you like, where there has been a considerable fall, and really analyse that fall, you find ample reasons for the fall, apart from any question of money whatever.

7705. The suggestion made is that the fall has taken place substantially since 1873, and that the changes in the facility of distribution and production have not been so great since 1873 as to account for that fall; many of these changes having, in fact, occurred prior to that date?—If you will allow me, I should like to leave that point—which I am quite prepared to discuss—till a little later; but I should like just to discuss the question as to what is the fact as to the existing supply of gold. Now I want to make one observation, which is personal, if you will allow me. I have been closely connected with the money market since the end of 1855—just 32 years, and I have been an interested spectator of what has been going on there ever since that time, and I say that we have never had so easy a money market, so low prices for money in the money market, and so little tendency to panic as since 1873, the very period when it is said gold has become scarce. And the importance of that observation lies in this, that England is a bullion money market. You cannot create a single note in England, Scotland, or Ireland without gold to back it—a new note I mean. You cannot, therefore, add to what is called, technically, the currency without having bullion, and I say, therefore, that if there had been any real scarcity of gold, it would have made itself felt in the money market. I know no test so good as to the condition of the money market as the condition of bullion—gold, strictly speaking. I know very well what is said on the other side, but I say that fact is very important to bear in mind. Some people have actually said in print that, for instance, the year 1876 was a year of feverish money; nothing more absurd was ever put down in print, as I know from personal experience. The year 1876 was a year of extraordinary ease, and of extraordinarily low rates of interest, although it came immediately after the effect of the great operations of Germany had been fully felt by us.

7706. You were at that time a partner in a house which carried on very large discounting operations?—We were, I believe, the largest discounters, by far, in London at that time of any individual house. And I am still connected with another concern of great magnitude.

7707. (*Mr. Montagu.*) Would not the plentifulness of money be accounted for rather by the diminished stocks of goods and the diminished prices of goods?—Well, I am not going to say that that would have no influence, but all I say, as matter of fact is, that going over a long series of years, not taking one year only—I only refer to that year, because it has been referred to by somebody else—but since 1873, we have had comparatively a continuous series of low interest money market.

7708. Have you not had a continuous fall in the price of goods of which this country used to hold large stocks?—In 1876 the fall was comparatively slight.

7709. Since 1874?—The fall was comparatively slight. It has become intensified, as I shall show presently, within the last two or three years especially,

and in a way which shows that it could not have been caused by money, because it has fallen far too rapidly in many instances—as for instance wheat—to be accounted for in any way by an alteration in money. Now, perhaps, I may be allowed to quote what I said on that particular subject, on page 14 of the little paper that I wrote: “Those who are familiar with the course of the money market will remember that the semi-panic of the summer of 1875, when enormous failures took place, was surmounted without a high bank-rate, and that the feature of 1876 was an excessively low market-rate—so low that vast sums of money were lent ‘at call’ during long periods at half to one per cent. per annum, and this before the general fall in prices had taken place, and at the very time when the effect of the German operations on silver was first fully felt, and the Indian exchange fell to 1s. 6d. in the rupee. Trade was no doubt depressed in 1876, and of course this was one cause of the want of demand for money, and the heavy fall in rates; but if gold were ever scarce, it should have become so when German demands had been so long ‘absorbing’ bullion on all sides. The general opinion was that during 1873 and 1874 German demands had diminished supplies of gold here; but by 1876 this special demand seems to have ceased, and as soon as it ceased the market assumed an aspect of excessive abundance of loanable capital.” I do not want to put too much on this point, but I do say that as far as the money market goes, there is no evidence of scarcity, but on the contrary a very important evidence of great abundance. But I do not rest there, I say that, during this present year, we have evidence as regards the reserves in the banks and in the United States Treasury, of gold, which goes to show that the existing amount of gold available for monetary purposes, and affecting the monetary world, is very much larger than it was six years ago. I take these figures, which I will venture to read to you, from *The Economist* of the 4th June this year.

SPECIE in the Great Depositories of the World.

1st January, 1881.

—	Gold.	Silver.	Total.
United States Treasury - -	£ 31,340,000	£ 15,800,000	£ 47,140,000
Bank of France - - -	22,569,153	49,121,749	71,690,902
Bank of England - - -	24,249,245	—	24,249,245
Bank of Germany - - -	9,010,184	17,096,366	26,106,550

1st May, 1887.

—	Gold.	Silver.	Total.
United States Treasury - -	£ 55,087,000	£ 48,563,000	£ 103,650,000
Bank of France - - -	47,651,632	46,483,974	94,135,606
Bank of England - - -	23,902,702	—	23,902,702
Bank of Germany - -	20,405,000	18,095,000	38,500,000

INCREASE and DECREASE in six years and four months.

—	Gold.	Silver.	Total.
United States Treasury -	£ +23,727,000	£ +32,763,000	£ +56,490,000
Bank of France - -	+25,082,479	- 2,637,775	+22,444,704
Bank of England - - -	- 346,543	—	- 346,543
Bank of Germany - -	+11,394,816	+ 998,634	+12,393,450

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I should like to add one word as to the specie in the Treasury of the United States at several dates.

	Gold.	Silver.	Total.
	£	£	£
1st January 1881 - -	31,340,000	15,800,000	47,140,000
1st January 1883 - -	34,301,000	25,000,000	59,301,000
1st January 1885 - -	47,000,000	36,080,000	83,080,000
1st January 1887 - -	53,620,000	47,800,000	97,420,000
1st May 1887 - -	55,087,000	48,563,000	103,650,000

Now if anybody can say that there is a scarcity of gold with these figures, I am very much surprised.

7710. (*Mr. Barbour.*) Do you know if the gold in the Treasury of the United States is readily available if it were wanted for any purpose such as export to Europe? How would you manage to get at it if you wanted it?—Well, that is a question which has a great deal disturbed our minds in the money market these last few weeks, and the Americans, with their usual ingenuity, have discovered means of parting with that gold. I do not say, of course, that the amount of gold is like gold in the reserve of a bank. I do not assert that, I only say that there is no evidence there of a want of gold, and at this moment the United States are lending that gold out in their own country, in order to have it used in commerce.

7711. But is it not the fact, that the accumulation of gold in the Treasury of the United States tends rather to tightness of the money market in New York than to ease?—Yes, of course it has, because they have a very curious law, by which the duty on import is so great, that the accumulation is very rapid; but I have no doubt some new law will be passed.

7712. (*Mr. Montagu.*) Would Mr. Fowler tell us how he gets his figures with regard to the silver held in the Bank of Germany?—I give you my authority, *The Economist*, 4th June 1887, and I do not know where it got the figures. I do not want to put it higher than I have stated; I should like to make one general observation on those figures, as illustrating the point that we shall come to presently, that the greatest bank of all, by far the most important commercially, I think we may say, without any vanity, has a decrease of gold in that time, that is the Bank of England; but nobody can say that the business of the country has decreased since 1881 I should think.

7713. (*Chairman.*) The decrease is not very great?—Only 300,000*l.* It is a peculiarity of our bank—of course anybody that is in commerce knows that—that we keep so little gold, and even to many of us it has been a subject of alarm, and I remember saying to the late Baron Rothschild that I thought it would pay the country to pay the Bank of England to keep a better reserve, in order to create confidence in the stability of our enormous mass of credit.

7714. (*Sir T. Farrer.*) But they have no difficulty in getting, if they want it, have they?—You may say, practically, that they have no difficulty. The theory of the Act of 1844 is, raise the rate of interest and you will get the gold you want, and I observe in Mr. Raphael's evidence before you, he lays great stress upon that, and says there is no difficulty whatever. I do not deny that at all, but as an *habitué* of the money market I have had some bad quarters of an hour, when it was a longer time in coming than I had wished it to be.

7715. (*Mr. Montagu.*) Have you at all calculated what the loss to the country is by raising the rate of interest unduly, I mean solely for the interests of the bank's gold reserve?—I do not know, I have never made a calculation; but of course it would be an enormous charge; but the curious point in reference to that is, that if you take the period since the supposed scarcity of gold, the rates have been excessively low, and according to that we must have saved a great deal of money by the supposed scarcity of gold.

7716. Is it not the fact that in France the merchant and trader can calculate on having his

money at three per cent. or under, over a course of years, whereas in this country he must provide for the contingency of the Bank raising the rate, which it usually does in the autumn?—I should like to read to you, with reference to that, some remarks that I made. There is one general remark which I think is interesting as showing the real condition of the money market. "That in the decade from 1866 to 1875, inclusively, there were 109 changes in the bank rate of discount; whereas in the decade from 1876 to 1885 there were only 61 changes." That is not exactly the answer to your question, but I think I have referred to it in this paper, in regard to the contrast between the Bank of France and the Bank of England. I have given the figures with regard to the comparative rate of the Bank of France and the Bank of England. In the note to page 19 I have said this: "Generally speaking, the rate of discount depends not on abundance of gold or silver, but on the organisation of credit, so that we see the lowest rates in those countries where there has been a comparatively small amount of bullion or coin. Compare, for instance, England and France. France has probably two or three times as much cash as we have"—that is, I mean by cash, bullion and gold—"but if we compare the rates charged from 1844 to 1877 by the Banks of England and France, we find that the Bank of England was at 3 per cent. for 2,682 days, and the Bank of France for only 1,518 days; and the Bank of England was at 2 per cent. for 1,391 days, and the Bank of France for only 270 days." Therefore if you take the figures of what Mr. Montagu referred to, you must also take the other side, that we have very low rates here for a long period, much longer than in France. I should like to put in, for the information of the Commission, the average rate of the Bank of England for each half-year, and for each year since 1873. I will not read them over now. I have only a general observation to make as to the lowness of these charges since 1873. The first year, 1873, $4\frac{1}{4}$. That was high, and why? Because of the panic in America, the worst panic they have ever had since 1842, and yet our rate was only $4\frac{1}{4}$ on an average on the year; 1874, $4\frac{1}{8}$; 1875, $3\frac{1}{4}$; 1876, $2\frac{1}{2}$; 1877, 2-17-9; 1878, 3-15-3; 1878, you will remember, was the year of the City of Glasgow Bank failure; 1879, 2-10-2; 1880, 2-15-3; 1881, 3-9-5; 1882, 4-2-9; 1883, 3-11-5; 1884, 2-19-2; 1885, 2-18-5; 1886, 3-0-11; 1887, 3-4-3.

7717. (*Chairman.*) You have given us your reasons for thinking that whatever the cause of the difficulties or changes that have taken place, scarcity of gold is not one of them?—I say as far as the evidence before me goes, there is no scarcity of gold, and that I do not know exactly where to get evidence, except from the condition of the money market, and of the stores of gold in the world. Perhaps I might be allowed, as it is somewhat germane to that remark, to say that an observation has been used, that gold in, for instance, the Bank of Germany, is somehow absorbed by the German nation. The word "absorbed" has been used. I do not know how gold could be in a more effectual form than coin, or in the reserves of the great banks. I remember an observation that Lord Overstone made before the House of Commons once. Somebody said: "Oh, it is no consequence what the reserve of the Bank of England is," and he said: "There is no gold so useful or so important as the gold in reserve in the Bank of England, because it is looked at by the commercial world, and it affects their movements." If, some fine morning, you came down and found there was only half a million of gold in the Bank of England, you would be frightened, and the whole business of the world would be upset, and so the amount of gold reserve in these banks is very effectual in the business of the world. It must not be regarded as gone and absorbed and of no use. I think the figure 200,000,000*l.* was used with regard to Germany, Italy, and America in some papers that were published some time ago, and, I think, in a speech by

Mr. Goschen. I always thought that that was a fallacious argument in regard to the absorption of the gold. I therefore only wish to say, that as far as I can see, there is no scarcity of gold, and therefore it does not do to assume that gold is scarce simply because prices have fallen. I think we are a little too impatient of low prices, and although it is not exactly to the point of what we are about now, I think that some economists have argued as if we should do something by the Government to raise prices. I must say that is a feeling that I have no sympathy with, though I have great sympathy with some classes who suffer from the low prices.

7718. I would not say that what you have stated is not germane, because one of the contentions has been that low prices were a bad thing, and that they arose from the existing state of the currency, and therefore we ought to alter the state of the currency?—It is very difficult to say what is high and what is low absolutely. You cannot lay down a law, but I think it is obvious that, to the great mass of the community, the low prices are an enormous benefit, and that for Government to go out of its way to try to raise the prices would be a very serious undertaking, whether it is by arrangements of the coinage or duties or any other way, and if the object of this agitation is to raise the prices, as I understand it to be, I must say that I have no sympathy with it, and I should be very sorry if it had that effect.

7719. I think that is only the view of some of those who advocate the change. I think there are many who advocate the change on entirely different grounds?—Yes, but I know there are some who take that view very strongly. I have a memorandum here, I do not know whether it is of any great importance, but it is a very curious fact that I can find no relation between the relative value of gold and silver and the relative stocks of the metals in different periods. As a matter of science it is a very curious point that one seems to see no relation. There was a most enormous increase in the production of gold as compared with silver, and yet silver never rose till 1873. I know how it is accounted for, and I dare say it is accounted for, but I do not quite understand why, between 1852 and 1857, there was so little change in the relative values of gold and silver, while silver practically was unchanged in production, and the production of gold was so enormous.

7720. (*Mr. Barbour.*) There was not much change in the relative value from 1800 to 1873; it was roughly between 1 to 15 and 1 to 15½?—I cannot carry my mind so far back as that. But according to the United States Mint, the production of silver really did not change during the whole period from 1851 to 1860; it was almost exactly the same, 8,000,000*l.* a year. It then rose to \$44,000,000, \$45,000,000, \$49,000,000, \$51,000,000, \$51,000,000, \$50,000,000, \$54,000,000, \$50,000,000, \$47,000,000, \$51,000,000, 61,000,000, \$65,000,000; and the first time we get a much larger production was in that very year 1873, when it got to \$89,000,000. And you know during the years beginning 1851, the production of gold for five years was enormous. \$132,000,000, in 1852; \$155,000,000 in 1853; \$127,000,000 in 1854; \$135,000,000 in 1855; \$147,000,000 in 1856; \$133,000,000 in 1857; and \$124,000,000 in 1858. I am quite aware of the different causes there were for that, but I think it is a remarkable fact and rather goes to show what will come out later, that it is very difficult to lay down a proposition which would make prices depend on relative quantities of gold and other articles. It is very difficult, and the precious metals are no exception to that difficulty. I do not want to carry it farther than that.

7721. (*Chairman.*) And there was no diminution in silver from 1852?—And a rapid fall in 1872. Of course we know how that is accounted for.

7722. Now, since 1850, have there been great changes in the course of trade?—I think as I said just now, that it is almost impossible to measure the changes that have taken place, and I would like to

enumerate them more in detail a little later on, but I would say that especially since 1873 we have had a very great amount of business. But the observation I wish now to make is that since 1850 there has been this prodigious amount of business done, and it has been done to a very large extent, at least as regards our own country, with a very small increase in our money. It has been done, as you may say, almost entirely upon credit, and there, I think, we come to a point which is of very vital importance as regards this inquiry, because if a change in prices results from causes, which have nothing to do with money, it would be a great mistake to alter money. If you want to alter prices it would be a delusion. Apart from the point that I just now stated, that there is no scarcity of the material money gold, I go farther, and I say that if your business is done without money, except so far as money maintains credit, then you would be on the wrong tack if you alter your money in order to maintain prices. Now, in order to show that this view that I take is not new, I will read some passages, if you will allow me, both from Mill and Tooke. I think the public have a most exaggerated idea as to the effect of quantity of money upon price. I believe, speaking generally, that the quantity of money has remarkably little to do with it, except so far as it affects credit, and that the great factors in all prices are the supply and demand of the article you are going to deal with. If I want to buy wheat, or I want to buy cotton, I do not talk about gold and silver, and inquire what the future of the money market is to be, unless the money market is in a bad state. If I think the money market is so queer that I shall not be able to get the money I want, and my bills discounted, then I will not buy. I then assume that something has happened which makes credit bad, but in the ordinary state of things, if credit is good and I have plenty of money at my back, if I know I can get it, I do not consider the question as to the amount of gold or silver in this country or anywhere else, I inquire what is the state of things in the cotton market? So about wheat: I look at the "visible" supplies. I look round to see what the harvest is to be; but as to money, it does not enter into business men's minds once a week, unless they see something about the gold having gone down in the Bank of England, and there is to be a rise in the rate; and if they are going to make money out of a speculation, nothing will stop them, if they can get the money, that is if they can get the credit at the bank.

7723. (*Mr. Barbour.*) If you have to buy in gold and sell in silver, would you not look at the relation between the two kinds of money?—Well, that might be; I might, certainly. I know what you are referring to very well. I shall come to that presently. I am dealing at present simply with the scarcity of gold, the appreciation of gold. I am quite willing to meet Mr. Barbour on Indian exchanges presently, but I do not want to discuss that at this moment. I think this is a very remarkable passage written by Tooke when credit was very differently developed to what it is now. In 1839 he makes a very curious remark in a note. He says: "It is a wonderful fact that there is 3,000,000*l.* turned over in the clearing every day in London." Why the daily average, I suppose, now is something like 20,000,000*l.* "Prices are the result of a certain ratio between the quantity of money entering into the markets for commodities, and the quantity of commodities offering for sale on the other; but the money, or that which performs the office of money, that enters into the produce or wholesale markets, consists in a very small, I believe in an infinitely small, proportion of bank notes. Nine-tenths, or more probably 99-hundredths, of the purchases and sales of the wholesale markets are transacted through the medium of book debts, or simple credit, and cheques on bankers. It is the balances only that require the intervention of bank notes. The Clearing House in London is a familiar instance of

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"the enormous amount of transactions, many millions adjusted by a few hundred thousand pounds of bank notes."—(History of Prices, Vol. 3, p. 275.) "An extension of the issues of bank notes, and a subsequent contraction, have been commonly the consequences, and not the causes, of occasional undue expansion alternating with collapse of credit."—(Ibid., p. 277.) It is, perhaps, hardly needful to get Mr. Tooke's authority for that statement, but it is very important, because I think it is so often forgotten.

7724. (*Sir T. Farrer.*) That is written in one of Tooke's arguments with respect to the principle of the Act of 1844?—I do not remember exactly. Perhaps, with regard to the Act of 1844, I may say that I am one of those who has always thought well of the Act of 1844, but I think for this question of price, it is not very important. I believe it is true that Lord Overstone and the authors of the Act of 1844 expected it to have an effect on prices, but they were mistaken, because they exaggerated the importance of bank notes; they did not sufficiently consider that bank notes are comparatively nothing. The circulation of this country, is not much bigger than it was 30 years ago. I have got the figures which I could give you if you like, but everybody knows that the circulation, especially in the country, tends rather downwards, because everybody is using less and less notes in business, and doing it more and more by cheques and bills and other instruments of credit, and the importance of bank notes was greatly exaggerated in all those discussions at that time. The public now do not trouble their heads about bank notes. One never sees one in a big business if his credit is right. He does not want any bank notes. I could discount 50,000,000*l.* of bills, and never see a bank note or a coin, and the idea that this question of cash is important is, I think, very much exaggerated, and people seem as if they have not even now become alive to the question of the importance of credit in price. Mill brought it very prominently forward in his book in 1845; he spoke strongly about it; but judging from recent things that I have seen, I must say, people talk a great deal more about the amount of money in the country, that is to say, bullion or coin, than they ought to do. I think it would be interesting in this connexion to refer to what Mr. Tooke has said about that wonderful period, between 1848 and 1856. There was an increase of 174,000,000*l.* in the gold of the world in those eight years, and 27 per cent. was added to the whole gold bullion of the world, and he has an elaborate argument in his sixth volume in which, I think, he proves to demonstration that, practically, it had no effect upon prices whatever. Now, I think, that is a point well worth the attention of this Commission, that during the period when you have had the biggest discovery of gold known since the Spanish American times, there was, according to the best authority I know, no effect upon prices from that mass of gold being drawn into the money markets of the world.

7725. (*Chairman.*) Where do you say that argument is to be found?—In the 6th Volume of Tooke and Newmarch's History of Prices. Now, all the instances of important variation in prices comparing 1857 with 1851, admit of being accounted for by circumstances affecting the supply and the demand. That is the point I want to urge, and I shall refer to that when we come to detail, if you will allow me presently, on the particular articles that have fallen. It is very curious, in a note to this particular argument, he uses this language:—"I leave out of this question," he says, "grain altogether," one of the biggest articles there is. Why? "Because the seasons are the most potent upon the price of grain." It seems to me a very extraordinary thing that grain should be left out of the calculation altogether—one of the most important articles in the world. But Tooke says:—"I cannot deal with that, because seasons affect the price of grain,

"so that you must leave money out," and I quite agree with him. You must leave money out in that case, and you may leave money out in a great many other things besides grain. Now, again, Tooke says that "the prices of commodities do not depend on the quantity of money indicated by the amount of bank notes, nor upon the amount of the whole circulating medium; but that, on the contrary, the amount of the circulating medium is the consequence of prices." (Vol. 6, p. 636, § 12.)

7726. (*Sir T. Farrer.*) The whole purport of Tooke's book was to show that the influence of money and of bank notes upon prices had been much exaggerated during the whole early part of the century?—Yes.

7727. He being a strong bullionist, said that the bullionists had exaggerated the effect of the over issue of bank notes?—He wrote a very remarkable essay on high and low prices, quite apart from his great book in which there is a most interesting analysis of every season for a long series of years, showing how the corn went up and down according to the seasons. Now listen to Mill: "Credit in short has exactly the same purchasing power with money, and as money tells upon prices, not simply in proportion to its amount, but to its amount multiplied by the number of times it changes hands, so also does credit; and credit transferable from hand to hand, is in that proportion more potent than credit which only performs one purchase" (Polit. Econ., Vol. 2, p. 61.) And then he points out the difference between a bank note which you can hand about, a bill of exchange which you can endorse, and a book credit which only helps the man who has it, and cannot be transferred, which is a very important consideration. I should like, if I may be allowed, to make one observation here with reference to the evidence of a witness who has been before this Commission, Mr. MacLeod. I do not think in cross-examination he quite kept up to his first statement. He put it rather more strongly than I should do in this way, that he did not sufficiently give weight to the mental influence of the presence of a great deal of gold coming into the country. He said, as I read him, 10,000,000*l.* of sovereigns do no more than 10,000,000*l.* of cheques. In one sense that is true, but the 10,000,000*l.* of cheques are a private affair floating about between individuals. Nobody knows anything about it. The 10,000,000 sovereigns go into the bank reserve, increase the bank reserve, raise prices of stocks, diminish the interest of money, and have a powerful influence on men's minds. In that sense I think that bullion and gold coming into a country are more powerful. Hence the secret influence, if you may so call it, of credit, the less palpable influence of credit; but when men are determined to buy, and want to buy, there is no difference. One is just as good as another. There is one other passage which, perhaps, I might read from Tooke: "The effect of brisk and rising markets, and the confidence created by the absence of severe commercial revulsions, have so powerfully stimulated enterprise and production in almost every part of the world, that hitherto the increased supply of commodities and the increased activity of dealings, have prevented even the addition of one-third to the former stock of gold from producing so far any marked or general rise of prices." (Vol. 6, p. 213.) Now it is a very curious thing that that was written on the eve of the panic of 1857, and I think it is an interesting observation for this Commission that the panic of 1857 took place just at the very culminating point of the discoveries of gold, when, according to this money theory, we ought to have been so very comfortable. But we were not. We had been trading too fast, as Tooke points out afterwards, in referring to the high rates of interest that prevailed. Then in 1856 and 1857 we felt the influence of the Crimean War, which had absorbed a great deal of gold. We had bad harvests in 1853 and 1855, which had absorbed a great deal

of gold, but it is a very curious thing that this passage should have been written then, and that there should have been that great commercial difficulty just at that time. That illustrates a point that I think is so important, that the commercial position depends upon the credit. If you so manage your affairs that your credit collapses, down goes everything, but if you maintain your credit you can keep up a very large amount of business with a very small amount of gold. And of course, everybody knows, take Europe through, the country that does the biggest business, has perhaps the least amount of cash per head in an available shape for business of any of the countries, because, as you know here, the greater part of our bullion has no effect whatever practically upon business; it is in people's pockets. It is not doing business at all, it is very busy in its own way, in the retail way, but it is not doing business in the sense of the word in which we speak of business in Cornhill and Lombard Street. And there, I think, we come upon one of these fallacies which I suffered from in 1882, when I brought forward the question of one pound notes. I was told that this was a great reserve, this cash in our pockets. I do not believe it is. I believe when the bad times come, there is more cash in one's pockets, not less, and that credit diminishes.

7728. (*Chairman.*) I understand you are citing these passages from Tooke and Mill, in support of the view which you desire to put before the Commission, that the amount of bullion and coined money in a country has comparatively little effect in determining prices, which are governed much more by the supply of the particular product, and by the demand for it, and the purchasing power at the back of that demand, which purchasing power is affected by credit to a much greater extent than by the mere amount of bullion or coin?—Yes. With regard to that, it may be interesting, perhaps, to refer to one very short set of figures (p. 12 of my pamphlet). “The total of our imports and exports from 1865 to 1875 was, in round figures, 6,000,000,000*l.*, and the total of bullion and specie imported and exported was in the same period 530,000,000*l.*, but the total of our imports and exports from 1876 to 1885 was 6,700,000,000*l.*, and this vast amount was moved with the aid of 493,000,000*l.* of bullion and specie. If we take the gold alone, we used about 327,000,000*l.* in the former decade, against 278,000,000*l.* in the latter.” Really the trade was larger than appears in the latter period, because the prices were lower.

7729. Your point is that during the latter decade a higher value of business was done with the use of a much smaller amount of specie?—Yes, by 700,000,000*l.*

7730. (*Mr. Barbour.*) Was it not the case that during the latter decade, the United States ceased on balance to export, and used up all their own gold? Would not that, to some extent, account for a smaller international movement of bullion?—I do not know about that, but I know the business was done. There is also a curious table which I am not responsible for, which I think is interesting. Mr. Mulhall says that the ratio of metallic money used in different countries to the total commerce of each country is as follows:—Spain and Portugal, 100 per cent.; France, 85 per cent.; United States, 58 per cent.; Italy, 40 per cent.; Germany, 34 per cent.; and Great Britain, 20 per cent. And I think it is interesting also to observe that, judging from what I hear on all sides, and from the stamps, the bills of exchange, especially the inland bills, have fallen off very much within the last 15 years. That observation was made to me by a very experienced man 10 years ago, speaking of the money market generally. And some figures that have appeared from the official returns seem strongly to confirm it, tending to show, I think, that, in larger proportion than formerly, business is done on a cash basis.

7731. (*Sir T. Farrer.*) When you say a cash basis, do you mean by cheque?—By cheque.

7732. (*Chairman.*) That is to say, that in the transaction of the business of the country, the functions which were discharged by inland bills of exchange, have become increasingly discharged by cheques instead?—Yes, because of the increase of wealth, I suppose. I do not know any other way to account for it. I know one large shipper told me that he used always to accept at four months for his freights. He told me, “I never now accept a bill; I take the discount.” I have sometimes thought—I could not prove it—that looking back to 1856, when I first went to Lombard Street, that there were as many bills floating about as there are now, with materially less money at the back, and infinitely less business done. There was an enormous mass of bad bills in those days, accommodation bills of every kind, an immense abuse of credit of which we have little or no sign at the present moment. But the business done of course has enormously increased since that time, and yet there is a tendency to continued diminution in the bills.

7733. (*Sir T. Farrer.*) Do you understand people pay ready money because they have more ready money to pay with?—I think taking the merchants in all kinds of business, there are people who can do without credit, and do a great deal more business than they used to do with the credit. I want merely to mention these figures about the stamps, I think they are very interesting. In 1874 the inland and foreign bill stamps amounted to 985,000*l.* Foreign, estimated for 1874, 303,000*l.* inland, estimated for 1874, 682,000*l.* In 1885 the inland were 342,132*l.*, and the foreign, 362,981*l.*, total 705,113*l.* It is an immense decrease.

7734. (*Chairman.*) And I suppose, undoubtedly, not represented by a diminution in the business to that extent?—Oh, no. I could mention to you people, whom it would not be right to name, who, years ago, used to bring large parcels of bills: men who do not, I believe, discount a bill at this moment, but keep them till they are due. That is merely, you may say, the accumulation of capital, but it has been going on, and I am one of those who think that although the times are very bad, accumulation goes on very largely. I am quite satisfied that it does, though not probably on the scale it did years ago.

7735. (*Mr. Barbour.*) Do you mean in particular trades, or generally?—Well, I think there is great exaggeration as to the badness of times. It is one of those things no one can prove or disprove; it is only an impression. I should say times are bad, because people do not bring enough bills, but then that on the other hand proves that the times are good, because they can do without them. I should like to make one observation more. I think there has been a very great tendency to forget that the precious metals are not used up; that they accumulate. It is, of course, an observation as old as the hills, but I think people forget it, and they speak a great deal about a large amount of gold coming in as if it was an important thing in the amount of the whole world. It is not. And they speak of a diminution of a few millions a year as if it was a very large reduction in the money of the world. While I admit that probably there is a large amount used in the arts, and larger than it used to be, and there is a considerable wear and tear, yet still, I think, there is a tendency to exaggerate the importance of that.

7736. (*Chairman.*) Before we pass from the question of credit, which we are dealing with, have you any observations to make with regard to increase in recent years in the economy of the use of gold?—I have only this general observation to make, that I was very much struck by the remarks made by Mr. Currie, and the figures that he gave, which entirely confirm my own impression, though I had not at hand similar figures, and also, I think, Mr. Birch gave some important figures in the same

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way, which I will not repeat. I entirely agree with those witnesses. I believe there is a constant and important tendency to use less and less money in business, and not merely in business—what I call business in the sense of large business, but take, for instance, postal notes. That is an illustration how strong the tendency is rather to use instruments of credit than cash, and I think one member of this Commission will agree with me, that we are very much deluded in not allowing our people to make use of one pound notes. It would be an enormous saving of the wear and tear of gold, and I do not believe would do any harm to any human being. I agree entirely with that general view that there is a continual economy going on as regards the use of gold as money.

7737. You think that the extension of the banking system by establishing branches in places of small population has led to the use of cheques, where formerly people would keep monies in their tills for their business operations?—I do not think there can be the slightest doubt of it. I could mention cases that have come under my own observation of that, but it would not be right to mention names.

7738. (*Mr. Barbour.*) Do you think the economy in the use of gold has proceeded at a greater rate in recent years than formerly?—I think it is one of those questions that it would be impossible to say much about. I think it proceeds on an increasing scale every year. I know Mr. Giffen has stated that years ago England was thoroughly banked. I never thought that was correct at the time. I do not think England is thoroughly banked, because it is not nearly so well banked as Scotland.

7739. But even if you take a country where this economy of gold is proceeding, will you not find, as a rule, that on the balance it imports gold, unless gold should happen to be produced in the country?—Well, we are very nearly even in this country. During a long course of years the export and import have been very nearly agreed, I think.

7740. I do not think that up to 1876 the export equalled the import, but the point I want to put is this, that the economy of gold has been going on for a long time. There is a great economy of gold, and there is also a great extension of business, still if you take most countries under ordinary circumstances, they are always importing some gold, that is to say, on the balance of all the demands and economies there is, as we may say, a demand for a certain amount of gold?—Well, I do not think that applies to us. For a long time we certainly were very nearly even.

7741. (*Sir T. Farrer.*) As to the question that the Chairman asked about economies in the use of gold by banking expedients, have you looked at some returns given in the "Journal of the Institute of Bankers," of June 1884 (p. 339), of the increase of deposits? There have been from time to time papers written by Mr. Palgrave and Mr. Dick, showing an increase of banking deposits in England as follows, viz., 553,000,000*l.* at one moment in 1870, 676,000,000*l.* in 1874, and 760,000,000*l.* in 1884, an increase at the rate of nearly 10,000,000*l.* a year?—No doubt there was a continual increase going on. There was a diminution in 1878 owing to the great failure of the City of Glasgow Bank, and some discredit ensued, but since that time it has been continually increasing.

7742. (*Chairman.*) I believe you have some observations to make with reference to the use of money in countries that are not so fully developed commercially as the leading commercial countries are?—I only wanted to say that I think it is a very curious fact, and rather a difficult fact to understand if the quantity of money is so important a factor in prices as it is said to be, that prices have not risen in India. Lately they have rather fallen according to the official figures, and yet silver is said to be in such excessive supply. And certainly India has received plenty of silver, and yet prices have tended downwards. It seems to me rather an illus-

tration that the prices depend upon other things far more than they do upon the amount of money, and I should like to make an observation with regard to Russia. I am assured that, in the inconvertible notes, in Russia, there has been no material advance in prices of late, and, on the contrary, as regards, for instance, oats, the unfortunate peasant, in many parts of Russia, is now only getting 2*s.* 6*d.* a quarter, that is to say, what is equivalent to 2*s.* 6*d.* sterling for his oats. I have that on the authority of a first rate merchant in the Russian trade. According to all the old theories, the exchange in those rouble notes having gone down from 37 to 21 at this moment, which I suppose arises from the excessive issue of those notes, prices as expressed in those notes ought to have gone up, but they have not. Prices are excessively depressed. Starvation, he says, it is in Russia, and we can get oats delivered in our houses at 16*s.* and 17*s.* a quarter, that we used to pay four and five and twenty shillings for.

7743. (*Sir T. Farrer.*) And we give so much less?—We are giving a great deal less than we ever did for oats, and Russia is now as to wheat the great competitor with England, a great deal more important than India, and what surprises me is that there is no material change in the value of produce in those notes.

7744. (*Chairman.*) Of course if that is the case, then as regards their sterling value, they could obviously be imported very much more cheaply?—Yes.

7745. What you would have expected would have been that as the rouble fell, the rouble price would have gone up?—I should have thought so. What has overcome it all, has been the supply. That is the point I want the Commission to understand, that I believe the vital question in these prices is supply and demand of the article, and not the question of money. I do not say the money is never important, but I say it is seldom important, and far less important than other things. I only wanted to make one more observation on the scarcity of gold. It is a very curious thing that the prince of bi-metallists, M. Cernuschi, denies that gold is scarce altogether. He says it is a delusion. He gives other reasons why he thinks it is a great delusion not to have gold and silver kept to such a ratio by Act of Parliament and international agreement. That is another point, but scarcity of gold, he says, is not a fact. I only mention that as a confirmation of what I have been saying.

7746. (*Mr. Montagu.*) Relative scarcity, is it not?—He speaks generally of scarcity of gold, as I read him. He repeated it in his last pamphlet, which he has just sent me, which is called "The Bi-metallic Par."

7747. (*Sir T. Farrer.*) At any rate, whether he says so here or not, it is the fact that M. Cernuschi has stated in previous publications that he does not believe in the scarcity of gold, is that not so?—Yes, that is so.

7748. (*Chairman.*) Then, in your view, does price depend on the quantity of gold at any given period, or on what other influences?—I have incidentally stated already, that I think the quantity of gold, without going so far as to say that it has nothing to do with the question of price, is a very minor consideration, and I think it is well illustrated by the way in which prices have kept even, as a rule, between France and England. Now, the commercial connexion between France and England, of course, is very close, and one understands perfectly that the price depends on the supply and demand of the articles passing from one to the other, and usual commercial considerations. But the amount of actual cash in France in proportion to business is very much greater than it is here. The quantity of gold in proportion to business is very much greater. And another point is very curious, the quantity of cash they use in their business is far greater. I find from a paper published in the "Journal of the Bankers' Institute," I think by Mr. Martin,

that about 44 per cent. of the transactions are effected by means of notes and cash, whereas in the London banks, only two or three per cent., and I believe even less now, of the transactions are thus effected. I think, therefore, that goes strongly to illustrate the opinion that prices depend on facts as to goods more than facts as to money. The French carry on their business in a different way. They use a great deal more money, and yet prices remain very much the same as they are here, except as they are influenced by duties and things of that kind.

7749. Then I think you have something to say about the comparative price of wheat and cotton?—I have. I mention those two articles, because they are very important articles, and no one can dispute that they are what you may call illustrative and typical cases of change of price. Now with regard to wheat, it will anticipate something that I am going to say, but I must say it now, because I want to bring out this contrast. The course of price as regards wheat is very curious. I will give you the exact figures. The price of January 1879 was 39s. 7d. a quarter; of January 1884, 39s.; January 1885, 32s. 6d.; and of April 1886, 30s. In the course of 1884 it fell 7s. a quarter, but no change of importance occurred from 1879 to 1884. Would any one in the world say that a fall of 7s. a quarter in one year was caused by a scarcity of gold, or that gold had anything whatever to do with it? It was not a year in which questions of money came up at all. Money was in good supply. There was nothing the matter with the money market, and I cannot conceive that anybody could suggest that it was caused by anything but enormous supplies from all parts of the world. The export from India that year was of importance, 21,000,000 cwts. I say, therefore, I think that that is an illustration of a sudden fall arising from an enormous supply. But I think the illustration of cotton is perhaps even more interesting. If you take the ten years before the American War and contrast them with the ten years after the American War, when the effect of the American War was over, you find the prices almost identical. These are the figures, and they are very interesting, I think: 1850 to 1860, price 6·40d., consumption of the cotton during 11 years, 44,000,046, or 4,000,000 per annum; 1875 to 1885, price 6·54d., consumption during 11 years, 82,559,000, say 7,500,000 per annum. The rise in price is only 0·14 of a penny.

7750. (*Mr. Barbour.*) The consumption of England, or all over the world?—In United Kingdom, Europe, and United States of America.

7751. (*Mr. Fremantle.*) What price is that?—It is the Liverpool price of what is called "middling Orleans." What I argue from that is, that if you have an article where the supply is only just about enough for the demand, the price keeps very even notwithstanding all changes of money, but where you have an article in excessive supply, down it goes, and you cannot keep it up.

7752. (*Chairman.*) Then what is the conclusion that you draw from this comparison between the price of cotton before the war, and the price of cotton recently?—I merely suggest it as an illustration of what I think is a fact, that when you have an article where there is no excess in supply, notwithstanding all the changes that have taken place in the time, the price remains pretty much as it was; but when you have an article as wheat, where the supply is admitted to have been enormous, so that one country is finding fault with the other for sending too much; there you have a great drop in price.

7753. (*Mr. Fremantle.*) And that would be the case whatever would be the supply or falling off of the precious metals?—Unless you influenced credit; unless you did something, or something arose which would cause discredit and alarm.

7754. (*Chairman.*) Then, in your view, the real causes of the variations of price are commercial?—Certainly; and I think that the greatest influence tending to lower prices, which we are so much dis-

cussing, is discredit. If you had a great excitement in trade, and a great deal of credit, and a rapid rise of prices, in consequence of great speculation followed by a sudden collapse, whatever the state of gold might be, prices would fall as they did in 1857, and again in 1866. There was a great reduction of price for a time in 1866, in consequence of the failure of Overend, Gurney, and Company. I was in Lombard Street in full possession of the facts at that time. I remember it well, prices were high during 1864 and 1865, when the average bank rate was more than six per cent., but they fell in 1866 in consequence of this great discredit which was the consequence, of course, of exaggerated credit before. And that leads me to make an observation on the effect of bank reserves on prices. I do not think bank reserves have much effect upon prices, except as they maintain credit, and if you have a sufficient reserve to keep the credit of one man with another going, as it were, prices will not be affected, except by the ordinary influences of supply and demand. But I have seen over and over again in England, that if once you let the reserve go down very low, then you get discredit and fall in price of stocks and shares and goods of all kinds, because people are not willing to buy, and people want to sell, more than others will buy; therefore, I think that a bank reserve is most important. I quite agree with what I quoted from Lord Overstone, that the money at the bank is as good and useful money as any money in the country, although it is not actually taken away and circulated. It is a very curious thing about 1864 and 1865; you may have high rates of discount accompanying rise in prices, though it is generally said that high rates of discount tend to lower price, because money is dear to buy, and that discourages transactions. It is not so at all times. During that period of 1864 and 1865, I recollect perfectly, we did an enormous business, and prices were high. Then in 1866 there was a collapse, and a good many prices fell. The cause was the fearful discredit. Well, what have we seen lately? Very low rates of discount, money very cheap to buy, falling prices. I think it is quite clear that people have got the wrong notion about that.

7755. But what has been suggested to us by some witnesses who take an opposite view to yours, is that that is what they would expect, inasmuch as a low rate of discount means that people do not want money, and they do not want money because trade is bad, enterprise is checked, and consequently people will not borrow, and will not use money for business purposes?—I know some people say that, but I do not agree with it at all. It is one of those things which is a question of opinion; it is not a question of figures, but the prices appear to me to depend upon the state of the goods, not the money; you may have prices very dear, and money very high, and you may have money very low and prices very low too and falling away. I think I have an observation about that which may be of some use. I see I have said this:—"Mr. Giffen says that, as increase of population and wealth demands more cash for the transaction of business, if fresh supplies of cash do not come to us in ordinary course, rates of discount must rise and values fall. But, recently, values have fallen without any serious advance in the rate of discount, with, in fact, a low average rate of discount. The old machinery does not work, for on several occasions the Bank has failed to raise the rate of discount, even when disposed to do so. It may be said that rates have not risen, because other causes have produced a fall of values which has brought about an 'adjustment.' If that be so, it seems to follow that other causes have been more powerful in causing changes of price than any changes affecting supplies of money. But it would be more correct to say that the supply of cash outside the Central Bank has been so great that permanent advance of rates of discount was impossible." That is a point that we have been seeing in London for years past. "The peculiarity of the

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" money market in recent years has been that, with
" a very moderate reserve, we have often had very
" low rates of discount—a condition of things which
" would not of itself tend to lower values, but values
" have fallen. It is hard to see how it can be said
" that want of cash for any purpose has led to the fall
" in such cases," p. 19. I should like to read in con-
firmation of the general view that I put forward here,
a remark by Dr. Bamberger in the German Parlia-
ment. It is extracted from Mr. Strachey's report on the
recent currency discussions in Germany (p. 26):—" To
" cause a low rate of interest two factors are necessary.
" There must be capital, and there must be circu-
" lating media to give it mobility. When either of
" these runs short, money is tight and dear. Money
" at 1, 2, or 3 per cent. is not thinkable, when no
" saved-up capital is available; nor can there be
" cheap money, when the actual circulating medium
" which represents that capital, and moves from hand
" to hand, is not forthcoming. The observation of
" facts shows that the rate of interest is far more
" dependent on the mechanism of the money supply
" than on the accretions of capital. With the modern
" banking system there is always more probability
" that money will be dear in spite of the presence
" of capital, than that it will be dear when there is
" available currency. The key to the whole is the
" state of the bank deposits. When banks lower
" their interest, and money is easy in trade and
" business, it may be safely assumed that the slackness
" of transactions is not a consequence of a scarcity of
" the circulating medium, which, on the contrary, is
" in excess of the demand. This is the vicious circle
" in which you (the silver party) keep moving round
" and round. You say, prices are falling and business
" stagnate, because the currency is short, and when
" you are told that money is abundant, you answer,
" that is why business is bad!" I do not think I
could put it much more clearly from my point of view
than that gentleman has done.

7756. I believe you have some facts that you would
communicate to the Commission with regard to the
range of prices?—Yes. I wish to make one obser-
vation about the index numbers. It appears to me
that there is a very great danger in trusting
much to the index numbers, so far as I have seen
them. It is clear that they frequently depend on
giving a most exaggerated importance to particular
articles as compared with other articles of far greater
importance. It goes on the system of averages. It
is all very well to take proper precautions, but it is
very misleading if you have not those precautions,
and I think the "Economist" list is defective in
that respect, and some of the others also. And the
German figures do not at all agree as regards the
rise and fall in prices with the "Economist" index
number or with any of our index numbers, I think.
There has been one attempt to get rid of the difficulty
made by Mr. Palgrave in Appendix B. to the Third
Report of the Commission on the Depression of Trade,
but that does not get rid of this difficulty altogether.
He endeavours to do it, but I do not think it is
possible. For instance, in the "Economist" list
they give indigo the same value as wheat in the
average. That that must be absurd. It cannot give
you any idea if you put indigo side by side with
wheat. And then they give two places to cotton
in the "Economist" list, and the "Economist" list,
therefore, during the American War is made an
absurdity, because the price of cotton was then so
high as to raise the whole average of those years, and
everybody admits that the price of cotton at that time
was raised by events which had nothing whatever
to do with the question of money.

7757. (Sir T. Farrer.) Is there not also this
difficulty about the averages, not only that the
proportions in quantity of the different things
render the index numbers untrustworthy, but that it
is a very questionable thing to take an average
between an article which may have been affected
by particular circumstances of supply and demand,

and other articles which have not been so affected?
—Yes, certainly.

7758. Does it not make it extremely difficult to get
anything like a fair average, supposing you have some
half-a-dozen articles which have not been affected by
anything but currency, and you have half-a-dozen
articles which have been affected by their own par-
ticular circumstances and supply and demand; does
it not make it very difficult to take an average of the
whole and say that that shows a general rise or a
general fall owing to a general cause?—Certainly; I
quite agree.

7759. (Mr. Barbour.) But if allowance be made
for the quantities of the different articles, do you not
get, practically, the same result?—No, not the same
result.

7760. I thought Mr. Sauerbeck got the same
result?—I am speaking of Mr. Palgrave generally,
Mr. Sauerbeck tried to do it, and also Mr. Palgrave.
It was not the same in Mr. Palgrave's case. I will
read you, if you like, exactly what I make out of
Mr. Palgrave's list:—"Treating each article as of
" equal importance, we get a number in 1869 of 2,200
" =100, and in 1885 a fall to 1,550, or 70, but the
" corrected figure is 1,669, or 76. The corrected
" figure of 1877 was 2,205, or 100, being 7 per cent.
" higher than that of 1871, and the figure of 1881
" was the same as that of 1871" (p. 22). So that it
is very curious that the corrected figure of 1881 was the
same as 1871, and the very heavy fall only began
after 1883. Now, if it was a question of gold, it
ought to have begun before that, in my opinion.
This is taking the corrected index number, the
figure for which for 1883 was 88, whereas the figure
for 1884 was 80, and in 1885 it was 76. And I
think, as I have mentioned in a note, it was rather
open to discussion whether Mr. Palgrave should
have taken the years 1865-69 as his datum line,
because they were a good deal affected by the
price of cotton. Sir Thomas Farrer asked me a
question about averages, I think. I will read you
a passage from Mr. Forssell's book. Mr. Giffen
has said that one great objection to the index
numbers, I think very justly, is that you take the
article from the price list without reference to the
different qualities of the article, and they vary very much.
It is exceedingly difficult to avoid error in that
respect: though he believes in the index numbers, he
admits that there is a difficulty in that. But
Mr. Forssell refers to a different point here:—"If
" from one year or decade to another the price of
" meat rose 20 per cent. (100 : 120), while the price
" of tea fell 25 per cent. (100 : 75), how could it then
" be considered as common sense to argue that both,
" taken together, had fallen (200 : 195) with 2½ per
" cent.? The only explanation of such a remarkable
" proposition would be, of course, that falling and
" rising prices are identical with something that in
" other words is called increase or decrease in the
" buying power of gold; and, consequently, that it is
" the buying power of gold, as compared with the
" two commodities, which is measured by the average
" calculation. Such a method of measuring the
" buying power of gold would, nevertheless, hardly
" be accepted by anyone, who, for 100 lbs. of meat,
" uses only 1 lb. of tea. He would soon find that if
" a pound of meat rose from 10d. to 1s., and a pound
" of tea fell from 4s. to 3s., the fall in price of the
" latter would be of little consequence to him, or to
" the buying power of his sovereign as compared to
" the rise in price of the former. While in the
" former period the two quantities of commodities
" would have cost him 4l. 3s. 4d. + 4s., they will
" now cost not 2½ per cent. less, or 4l. 5s. 1d., but
" 5l. + 3s., or 18 per cent. more. He will not be
" able to obtain more meat and tea for his 3l. 7s. 4d.,
" but, on the contrary, less. For him the buying
" power of gold has not increased by 2½ per cent.,
" but fallen by 14½ per cent. Thus, in striking an
" average of the buying power of gold, it is, no
" doubt, an error, and a serious one to omit from the

" calculation the 'quantities in exchange' of the various commodities. If, when dividing the total sum of the special price-figures by the number of the articles, you take each article as an entity, you will therewith wrongly admit each one to have the same influence on the final result, irrespective of its quantitative importance in the market. The articles coal and meat absorb far more currency than the articles buffalo-horn and cochineal. It is, therefore, quite unreasonable in striking the average, to allow the rise in price of buffalo-horn to play the same part as the fall in price of coals, or to let the decreased buying-power of gold compared to meat, be balanced by its increase in comparison with cochineal, which latter requires scarcely one ten-thousandth part of the amount of currency absorbed by the former" (Forssell, p. 25). That is a general observation of much force. Of course, it has been endeavoured to be met, but it has not been fully met yet.

7761. (*Mr. Barbour.*) What I understand you to say is this, that the index numbers may show that there is pretty generally a fall in price, but they do not prove what the cause of it is?—Yes.

7762. (*Chairman.*) As I understand the earlier index numbers, the fall in price might have resulted from a certain number of commodities, so that although other commodities had risen in price still an apparent total fall of price might have been exhibited. Is that so?—Yes. I only wish to protect myself from admitting that this index number plan is satisfactory. I do not think it is.

7763. I suppose you would say, that on the reasoning which is based upon those index numbers,—that because there has been a general fall there must have been a general cause, which it is suggested is a change in currency—if the fall has not been universal, but there have been exceptional cases in which there has been no fall, those who contend that the currency is the cause, ought to be able to point to some special reason why those articles have remained steady?—Yes, certainly; and some of them have risen materially.

7764. Then you are going to give some facts with reference to the range of prices?—Yes; I should like to read you a few words from Mr. Wells' articles in the "Contemporary Review," because there are some points upon which I have not touched. I mentioned just now the case of wheat, and the remarkable fact that it had not fallen between 1879 and 1884, and suddenly fell between 1884 and 1885; whereas if it had been a gold question, it would have fallen much sooner than that, and would not have fallen with such suddenness. Now Mr. Wells refers to some curious points about the wheat question. In America it has fallen very severely too, and America is a bi-metallic country. Silver is legal tender as we all know who have been there.

7765. (*Mr. Montagu.*) How could it keep up in one country, and fall in another with international trade?—That is another question.

7766. But could you have cotton rise and wheat rise or fall, and not fall in America when it falls in the rest of the world. Is it possible with international trade?—I am not stating that you can, I argue in this way: here is a country that is a bi-metallic country, it cannot keep up the price.

7767. There is no significance in the price going down in a bi-metallic country if it is going down in a gold country, because the one market rules the other?—Of course. Here are the facts with regard to wheat which are mentioned by Mr. Wells: "The cereal production of the United States increased from 932,752,000 bushels in 1862 to 2,992,881,000 in 1884, and in acreage from 34,594,381 to 136,292,766, or in the respective ratios of 452 and 338 per cent. respectively. The average wheat production of the United States for the five years from 1881 to 1885 inclusive was 436,000,000 bushels; while for the ten years preceding—some of which supplied the heaviest demands for exportation ever experienced,—the average was only 366,000,000

bushels. According to Mr. Neumann Spallart, a German statistician of repute, the production of cereals in Europe doubled from 1869 to 1879; and in the case of Russia, her exports of wheat increased from 36,565,000 bushels in 1880, to 67,717,000 in 1884." In regard to Russia, I have it on the authority of one of the first corn merchants—that her supply this year is enormous, and the curious fact is that Russian wheat is coming more here, because of the protective duties in France and Germany; and they cannot get rid of rye, except in England, for a price that the cattle feeders will give them. "According to figures of the United States Bureau of Agriculture, the average production of wheat in Europe for the five years from 1875 to 1881 inclusive, increased some 50,000,000 bushels over the average of the ten years preceding, which included several seasons of unusually low yield in Western Europe. In 1862 the United States exported bread stuffs to the value of \$24,000,000; in 1872 the corresponding value was \$87,000,000; and in 1880, \$288,000,000; and if since this latter year there has been a decline in the value of American cereal exports, it cannot be attributed to any impairment of ability to produce and export, if sufficient inducements existed. While, therefore, it is clear that the comparative product of the heretofore great wheat-producing countries has not diminished, recent experiences are also making it evident that the world is hereafter to derive important supplies of wheat from sources which a few years ago did not exist, or were regarded as of little importance. For example, British India, which in 1880, exported only 13,896,000 bushels, and whose increase of wheat exports appears to be coincident with the increase of the railway mileage of the country, in 1885, exported 39,312,000 bushels. During the same period, Australia and New Zealand in which a rapid growth of population inevitably tends to divert agricultural industry from wool-producing to wheat growing, increased their exports from 13,999,000 bushels in 1880, to 19,466,000 in 1885; and the Argentine Republic from 5,772 bushels in 1881, to 3,986,000 in 1884. All the indications are, furthermore, that the increase of wheat supplies from new sources is likely to be continuous, and of great magnitude from India, whose internal and foreign commerce is yet only in its infancy, but is developing with extraordinary rapidity under the influence of railroad construction; from the great wheat region of Manitoba, to open which the Canadian Pacific Railroad was mainly constructed; from Algeria and Northern Africa, which, once the granaries of the Roman world, are now, for the first time for centuries, contributing something to the world's surplus of cereals; and from the South American States of the Argentine Republic and Chili, where extraordinary railroad construction is rapidly drawing an extraordinary European immigration to the finest of wheatlands, which, so recently as 1880, were practically inaccessible. Great also as is the present wheat production of the United States, Mr. Atkinson has shown that all the land at present in actual use in that whole country for growing maize or Indian corn, wheat, hay, oats, and cotton, is only 272,000 square miles, out of 1,500,000 miles of arable land embraced in its present national domain, and also that the present entire wheat crop of the United States could be grown on wheat land of the best quality selected from that part of the area of the State of Texas, by which that single State exceeds the present area of the German Empire." (Wells in Cont. Rev., October, p. 532.) Now I should like to make a few observations as to sugar, which is one of the most important articles, and about which there has been most excitement, and in which there have been most terrible losses in this country. "Sugar did not fall much between 1879 and 1884, but West India sugar fell from 16s. to 19s. per cwt., to 9s. 6d. to 12s. before January 1885, and it remains much the

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" same in 1886. But in 1884, we received $7\frac{3}{4}$ million cwt. of unrefined sugar from Germany, as against $4\frac{1}{2}$ million cwt. in 1882; and the production of beetroot sugar increased from 1,393,000 tons in 1879, to 2,500,000 tons in 1885. In the same period the production of cane sugar increased slightly, but the total sugar production of the world increased more than 30 per cent. These figures account readily for the fall." Now there is another figure. Take the Clyde. "In 1858 the first 200 tons of beetroot sugar were imported, the total import of sugar for the year being 70,000 tons. Last year 241,000 tons came into the Clyde, 158,000 being beet and 83,000 cane." (*Appreciation of Gold*, p. 23, &c.) Now a very few words more on the sugar question will illustrate what is to be said on that. "Mr. Sauerbeck estimates the increase from 1872-73 to 1885-86 to have been 68 per cent. Other authorities estimate the increase from 1853 to 1884, exclusive of the product of India and China, to have been at the rate of 30 per cent. for each decade, or about 100 per cent. compounded. In the Hawaiian Islands, where a remission of duties on sugars exported to the United States, is equivalent to an export bounty of about 100 per cent., the domestic production has increased from about 12,000 in 1875 (the year before the duties were remitted to 110,000 tons in 1885), an increase in 11 years of 750 per cent. The part that beetroot sugar has played in the increase, is shown by the circumstance that while in 1860 the proportion of this variety to the whole sugar product of the world (commercially exported) was less than 20 per cent., the product for 1886-87 is estimated as in excess of 55 per cent., Germany alone having increased her product from 200,000 tons in 1876, to 594,000 tons in 1880-81, and to 1,155,000 tons in 1884-85, while the increase of the beet sugar product in the other bounty-paying states of Europe was not disproportionate." I do not think I need add anything more than to say that, "for the year 1885, 2,000,000*l.* it was claimed, would be necessary to pay the bounty, or an amount equal to the total wages paid to all workmen in all the German sugar refineries." (*Wells, ibid.*, p. 530.) I am not arguing in favour of bounties; I think that is a most insane system, but these facts will account for the fall in price. You do not want to speak of gold; it is the enormous supply from different causes. Well, now, I should refer to copper. When I was coming over from the United States in 1881, I met an American, and he said, "I do not quarrel with your copper market at all. I like 66*l.* a ton. I can put it down at Baltimore harbour at 33*l.*" I said I did not quite believe that, but it is quite certain that it has been down to 39*l.*, though it has now risen a little. It is now 44*l.* or 45*l.* Let us see the figures. Copper was about 90*l.* a ton in 1873, 57*l.* in 1879, 65*l.* in 1883, and 41*l.* in 1886, in face of a great demand, but supplies have been, and are, so large (say 47,000 tons in 1850, and 210,000 in 1884) that the fall surprises no one." The production in America, as long as we kept up our price, was something perfectly stupendous. It is rather remarkable, in reference to that, that Mr. Jevons, in one of his books, written, I think, in 1863, says, that he considers that the metals are very unlikely to fall. Well, I am not quarrelling with his authority. He is a man for whom I had the greatest regard and respect. It only shows how very little anyone can know about the course of prices.

7768. (*Mr. Barbour.*) Are you aware that Professor Cairnes wrote that he did not believe that the relative value of gold and silver could alter. His exact words are, "The reasoning assumes the possibility of a serious divergence in the relative value of gold and silver; but I now believe that such divergence is practically out of the question?—Yes, very likely; that concurs with what Professor Jevons

has said about the metals. I will not trouble you more about copper. It is one of the most remarkable instances that I know of, because the fall has been so very rapid. It is not to be accounted for in any way that I know of, except by extraordinary supplies, but it is easily accounted for by the extraordinary supplies.

7769. The cheapening of the production, I suppose, you would say?—Well, yes.

7770. (*Sir T. Farrer.*) And at the same time there has been a greatly increased demand?—There has been an enormous demand for copper wire for the electric telegraph. There is one thing I was told the other day, which is very important. I understand copper is like the precious metals in one thing; it wears out very slowly, and old copper fetches a very considerable price, just like lead.

7771. (*Mr. Barbour.*) I suppose what you would say with reference to that is that the cheapening of the cost of mining copper has proceeded at a greater rate than the cheapening of the cost of mining gold?—I say that there was no occasion to talk about gold at all in discussing the price of copper. There has been such an excessive supply, that we need not discuss it, and, speaking generally, I do not believe the price depends upon the supply of gold. I believe price depends upon other factors, and not upon the supply of gold. In the main the supply of gold is a minor and unimportant factor, as a rule.

7772. (*Sir T. Farrer.*) But, supposing gold to have been at an absolutely stationary point, there is sufficient in copper itself to account for the change?—Yes, certainly.

7773. (*Mr. Barbour.*) I do not object to that. What I say, is this, that supposing the cheapening of the mining of gold had proceeded simultaneously with the cheapening of the mining of the copper, you might have had the same price, or, at any rate, a higher price?—I doubt it very much. I do not think you could. Now, here are some very curious facts for America, which I think are worth noting: "The countries which have most notably contributed to this increased product, have been the United States, and Spain, and Portugal; the increase in the case of the former having been from 23,000 tons in 1879, to 74,053 tons in 1885; and in that of the latter from 32,677 tons, to 45,749 in the same period. As in all other like cases, the disturbing effect on the industries involved—mining and smelting—contingent on this rapid and remarkable fall in prices was very great, and in all quarters of the world. In Montana, the Montana Copper Company, with an annual product of 8,000,000 pounds of pure copper, entirely suspended operations; and the Anaconda Company, with an unusual product of 36,000,000 pounds, shut down 20 out of 28 furnaces, and discharged most of its hands at the mines. In Chili, production during the year 1885, was diminished to the extent of about 10 per cent. In Germany, the Great Mansfield mine, which reported gross profits in 1884 of 5,675,000 marks, sustained a loss in the operations of 1885 of 653,338 marks; and its managers have since sought relief by petitioning the Imperial Government for the imposition of a higher tariff on the imports of copper into the Empire." (*Wells, ibid.*, p. 540.) That is very probable. They expect the Government to do everything there. Well then, it is hardly necessary to refer to iron and coal. Iron and coal got to their maximum just about that critical year 1873—rather before 1873. In the years 1871 and 1872 they got to enormous prices. Some people, I know, made a half-a-million in one year out of their coal and iron, and it was a most exaggerated position altogether. "Scotch pig iron fell from 6*l.* 7*s.* per ton in 1873, to 2*l.* 9*s.* in 1883, and 1*l.* 18*s.* in 1886; but the production of iron was 9,392,000 tons in 1868, and 20,410,000 tons in 1883, so that a fall was inevitable sooner or latter." (*Appreciation of Gold*, p. 24.)

The witness withdrew.

Adjourned till Friday.

THIRTY-FOURTH DAY.

Friday, 11th November 1887.

PRESENT :

THE RIGHT HON. LORD HERSCHELL, the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.

MR. J. W. BIRCH.

MR. H. CHAPLIN, M.P.

SIR T. H. FARRER, Bart.

MR. C. W. FREMANTLE, C.B.

SIR JOHN LUBBOCK, Bart., M.P.

MR. S. MONTAGU, M.P., and

MR. GEO. H. MURRAY, *Secretary*.

MR. WILLIAM FOWLER recalled and examined.

7774. (*The Chairman*.) Before we proceed to any further point, have you any addition or explanation that you would like to offer with reference to the evidence you have already given?—There are one or two points that I should like to refer to. I know that there is a difference of opinion as to the importance of the evidence about the condition of the money market; and I wish to say that I think it is of the greatest importance that that point should be clearly before the Commission, because it seems to me that if gold were really scarce, it is almost impossible, through a long course of years as from 1873 onwards, we could have the condition of things to which I referred last time. I mean, that as we cannot create notes without gold, and as, if we want money, we have to raise the rate to attract the bullion, and as we have had to raise the rate less in the last 15 years than we had before, it seems to follow very clearly that, as far as the money market goes, gold has not been scarce during that period. And in order to illustrate that more clearly, I have taken out the average bank rate for the years from 1857 to 1872 inclusive, which are the 16 years previous to those I gave before. Now, I find that the average of that 16 years is 4*l.* 2*s.* 6*d.*; the average of the 14 years I gave last time is 3*l.* 6*s.* 9*d.*, and in some of the previous periods the rate got to a very high point on an average. For instance, in 1857 it was an average of 6*l.* 12*s.* 3*d.*; in 1864 it was an average of 7*l.* 10*s.*; and in 1866 an average of 7*l.* We have never had any such rates since that time during the period in which, we are told, that gold has been scarce. I mention that particularly, because I notice in Mr. Giffen's evidence he has treated it almost as a matter of course that gold is scarce, as if it were an obvious fact about which there was no doubt at all. I wish, therefore, to impress very strongly my view that those facts about which I have given evidence are of the greatest importance.

7775. (*Mr. Montagu*.) Would it not be the case, that you raise the bank rate above those of foreign countries, so that the high rate of discount in England imposed in order to bring gold would be almost entirely regulated by the value of money in the centres from which we wish to bring the gold, and that it may be just as effectual to raise the rate to 4 per cent. with the French rate at 3, as it would be to raise it to 7 with the French rate at 6, and that the discounts that you quote are merely relatively superior to those of the Continental countries at the time?—I have not examined the Continental rates of the time to find out that. I do not think that is the real cause. The real cause is, that there has been a plentiful supply of gold for all purposes since the time I speak of, 1873, and that you have supplied Germany, you have supplied Italy, you have supplied the United States, and still there is an abundant supply here; and the best test that I know of the abundance of the supply, is the average bank rate during a series of years. I say that we cannot get on here without this sufficient supply of money, that is, gold.

7776. (*The Chairman*.) But supposing the suggestion made by Mr. Montagu to be correct, it would not be inconsistent, would it, with what you have said, because the point made is that gold is scarce everywhere, not merely in this country, and if there

has been a low rate of interest everywhere, so, with a low rate of interest, you can still draw here all the gold you want. That would still be quite consistent with your argument that there was no scarcity of gold?—No; I think it is a general abundance. According Mr. Montagu's own view, there was a considerable scarcity in other countries before 1873. That was just the time when we had had the large influx from abroad, from California and Australia, and before the great movements in reduction of gold began.

7777. (*Mr. Montagu*.) Have I stated that? I do not know. I say that you cannot judge by the actual range of discount rates, because they are never raised except in a sufficient degree to attract gold, and that 4 per cent. might be as relatively high now as your quotation of 7*l.* 10*s.* in 1864?—I understood you practically to say that the reason the rates were so high before was, that you had to overtop high rates, otherwise there was nothing in your argument.

7778. Certainly! I say it?—That rather implies, as the Chairman says, that gold was scarcer before 1873 abroad than it has been since. I do not care which way you put it, I only say it as matter of fact that for the 32 years that I have been in the money market, we have had far more ease when there was a supposed scarcity of gold than we had before; and I think that is a most important fact, and easily explained, in my opinion, from what I believe to be the fact, that there has been no scarcity of gold.

7779. (*Mr. Barbour*.) Assuming that it was the abundance of gold, or the absence of scarcity of gold, in recent years, which has caused the rate of discount to be low since 1873, why was it higher before 1873?—Because, I suppose, that the demands upon the market were very great, for reasons that one cannot altogether explain. I read you from Mr. Tooke the other day a passage in which he gave the causes why rates had been very high in 1856 and 1857, owing to the Crimean War, and bad harvests, and a great inflation of credit, and so on. There was a scarcity of gold; the gold was sent away for various causes, and gold became scarce, although it was just after you had had a very large influx of gold. But I apprehend that one of the great causes has been that there has been a considerable depression of trade, and also a great accumulation of capital, so that credit has been better able to do the business of the world than it was in the previous time. I have not gone minutely into the causes of the difference, but I apprehend that is one of the causes, that credit has become even more effective than it ever was, and therefore there has been a less demand for gold than there was in the previous period. But I am only saying that, as far as the evidence of the money market goes, it tends to show that there has not been this great scarcity which is almost assumed without discussion.

7780. (*The Chairman*.) In some of those years that you have given us, the higher rate is accounted for by a great collapse of credit?—Of course it is; in 1866 it was Overend and Gurney's failure.

7781. And 1857?—It was the year of a most fearful panic in America and England.

7782. (*Sir John Lubbock*.) And other failures besides Overend and Gurney?—Yes, a great many. The panic of 1866 is called the Overend and Gurney

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panic, but there were many failures besides Overend and Gurney's. And then take 1864, which is a very remarkable case. I remember perfectly well at that time there was an enormous trade with the East, and an immense demand for accommodation of every kind. If the demand for accommodation is very great, up goes the rate, and the rate of interest is sometimes very high although there is no great change in the bullion. You may have the rate very high because the demand for accommodation is very great.

7783. (*Mr. Montagu.*) But have you not accounted yourself for gold not being perceptibly scarce by stating that one reason was the depression of trade and the falling prices, and, of course, the want of enterprise, therefore, if those conditions had not arisen the quantity of gold might still be insufficient?—Yes, I must say that, as a matter of fact, in the ordinary course of business it has often struck me that the daily demand for, for instance, the discounting of bills, for whatever reason, is reduced. We had it last time with regard to the stamps. But there is a marked diminution in the demand. A great business, in the aggregate greater than ever, is done, but with less use of money even in the form of credit. That is the history of the last 15 years. There is no doubt that a great deal more business has been done, but with less demand for money, in the technical way that we use the word money, in the money market. And I agree that there has been a diminution in the demand, and that has led to a low rate of discount. But I cannot say that I see the slightest evidence from that that gold is scarcer; on the contrary, when you want the gold you get it, and you get it, on an average, at a much lower rate than you were able to get it during the previous period, when it was supposed that there was no scarcity of gold.

7784. (*The Chairman.*) I understand that all that you say is that, at all events, looking at the rates of discount during this period when the scarcity of gold is supposed to have existed, these returns form no evidence of scarcity?—No evidence of scarcity, as far as they go. If the rate of discount is an evidence either way, it goes the other way.

7785. (*Sir John Lubbock.*) When you say they get the gold at a lower rate, you mean they get the temporary use of the gold, not the absolute right to the gold?—Of course that is always the case. That does not apply to one time more than to another, but I am only speaking of two periods when the same operation is going on.

7786. (*Sir T. Farrer.*) The rate of discount is the price paid for the use of what may be called ready capital, is it not?—Yes, it is for the loan of money.

7787. Then that depends not separately upon either demand or supply, but upon the proportion of the demand to supply?—Yes.

7788. Like every other price?—Yes.

7789. Consequently you may have a very large supply, but if the demand is greater than the supply, the rate of discount will still be very high, will it not?—It might.

7790. And on the other hand, if the supply is small and the demand is small, the rate may be low?—It might be so.

7791. But if you find that for a considerable period the rate is low you may argue, may you not, that at any rate that has not been caused by a deficiency of supply?—I should say so.

7792. Because if the supply was deficient in proportion to the demand, the price would rise, would it not?—Certainly it ought to.

7793. Therefore a low rate of discount for a period of years is proof that the low rate is not due to a failure in supply?—I think so, decidedly.

7794. (*Mr. Montagu.*) Have you lost sight of another very important factor that may account for the plentifulness of gold, and that is that in your table you give the amount of silver held by the different banks—an amount of about 112,000,000*l.* in three banks alone. That is in your evidence here at question 7709: "The United States, 48,000,000*l.*;

Bank of France, 46,000,000*l.*; Bank of Germany, 18,000,000*l.*." They issue paper against this silver, and consequently freed a similar quantity of gold in those countries, or at least taking the place that might otherwise have been taken up by gold?—I think it is quite true that there has been a large amount of gold liberated.

7795. By the issue of paper?—Partly by the issue of paper. That may be so. I have not looked minutely into that, but I daresay you are quite right that there was a very large release of American gold during the war, that is, in the previous period. But I tell you where I think there was a very large amount of gold released, and that was after the Franco-German war. There was a very large amount of gold went from France to Germany, taken from French hoards.

7796. But have you any authority for it being French hoards?—There is no doubt there was an enormous increase of the Bank of France notes at that time.

7797. But are you aware that the French, of all other people, hold the largest quantity of small railway obligations and small bonds, and that they are about the last people to hoard gold?—I have no personal knowledge. I have only seen that stated over and over again.

7798. (*The Chairman.*) But with regard to what Mr. Montagu has said, that would not be inconsistent with your view as to gold. If by reason of the use of silver in the place of gold, or its answering the purposes of gold, people are ready to part with their gold, and it is liberated, that would show that it has not appreciated by reason of scarcity?—Exactly. And with regard to the French question, I think it is matter of observation, as I understand the figures, that the circulation of notes by the Bank of France over the amount of bullion held, increased by 91,000,000*l.* from January 1870 to November 1873. I apprehend that was in order to liberate gold.

7799. (*Mr. Montagu.*) I think you will find that the indemnity was paid to Germany by means largely of silver or silver bills, bills on Germany itself and on Holland and Belgium payable in silver, and therefore it is no guide as far as the transfer of gold from France to Germany. I do not think you can draw much argument from it?—I do not wish to press that at all because I have no minute information, and I do not want to speak of what I do not know, but I certainly do think that as far as the evidence of the money market goes, it has not shown a scarcity of gold within the last 15 years. I think it is right to mention the story of the circulation within the last 30 years in our own country, because it illustrates the point that I was referring to, very strongly. If you take the circulation in 1845, 1847, 1854, and 1885, the Bank of England circulation in 1845 was 21·73 millions, the country 7·7, Scotland 3·29, Ireland 6·95, making a total of 39·67; in 1847 the figures were Bank of England 20·11, country 7·6, Scotland 3·55, Ireland 6·01, total 37·30; 1854, Bank of England 21·83, country 6·80, Scotland 4·15, Ireland 6·29, total 38·97; and in 1885, Bank of England 25·2, country 3·0, Scotland 6·2, Ireland 7·0, total 41·40. In 1885 the total is 41 millions against 39 millions in 1845, an increase of only two millions, although we have had such an enormous increase in the business of the country. I think that strongly illustrates the point that the business is actually done, I was going to say, without money.

7800. (*Mr. Birch.*) By instruments of credit?—By instruments of credit. It is one of the most remarkable set of figures that you could possibly have before you in discussing this question. I want to add one word with regard to M. Cernuschi. Mr. Montagu expressed some doubt as to what M. Cernuschi had said as to the scarcity of gold. In the *Economist* of 24th April 1886 he wrote as follows: "The fall in prices which is complained of is not due to what has been called a scarcity of gold, which is purely imaginary. If by an

" enchanter's wand all the silver francs, all the silver marks, all the silver dollars were converted into gold francs, gold marks, gold dollars, the European and American prices would remain unchanged."

7801. (*Mr. Montagu.*) Excuse me, I do not think you will find that I maintain that gold is scarce, and M. Cernuschi's remarks apply more to this, that whereas silver now is a large portion of the circulating medium, if you change that silver into gold you would still have the same circulating medium, it would not affect it in any way?—I only quoted that because you disputed the other day whether he had said that or not. Then Lord Herschell asked me last time whether there was any new evidence as regards the extension of cheques and so on in the country. I have obtained some very interesting figures from Messrs. Barclay, who permitted me to use their name. The one set of figures is their country clearing for the months of November 1882, 1883, 1884, 1885, and 1886, and the result is summed up in a letter from one of the firm in this way: "They show an increase in the number of articles of 16 per cent., a decrease in the aggregate amount of 2 per cent., and a decrease in the average amount per article of 17 per cent."

7802. (*The Chairman.*) Between what dates are those?—That is between 1882 and 1886. Now I say that shows manifestly that the cheques are going lower down, that the class of people who are using cheques is becoming smaller and smaller in one sense, but it is larger and larger in another, that there are more people of what I may call the humbler class of traders beginning to use banking facilities. And I find from inquiry that that is the impression very strongly of country bankers. The figures are as follows:—

COUNTRY CLEARING.

"In-paid."

—	No. of Cheques.	Total.
1882.		£
November 24 -	5,940	193,800
" 25 -	6,010	169,300
" 27 -	8,770	248,200
" 28 -	6,140	180,500
" 29 -	5,730	172,600
" 30 -	6,080	199,000
	38,670	1,163,400
1883.		
November 24 -	5,800	180,500
" 26 -	9,110	229,800
" 27 -	6,620	209,700
" 28 -	6,490	196,700
" 29 -	6,550	195,600
" 30 -	6,140	182,600
	40,710	1,194,900
1884.		
November 24 -	9,110	226,200
" 25 -	6,490	186,300
" 26 -	6,350	211,600
" 27 -	6,830	210,200
" 28 -	6,420	179,000
" 29 -	6,550	179,500
	41,750	1,192,800

—	No. of Cheques.	Total.
1885.		£
November 24 -	7,110	181,200
" 25 -	6,830	159,100
" 26 -	6,490	161,900
" 27 -	6,280	147,300
" 28 -	6,550	194,700
" 30 -	9,110	212,000
	42,370	1,056,200
1886.		
November 24 -	6,830	170,700
" 25 -	7,180	191,300
" 26 -	6,700	189,900
" 27 -	7,460	180,200
" 29 -	10,100	228,400
" 30 -	7,040	170,800
	45,310	1,131,300
November 1882 -	38,670	1,163,400
" 1883 -	40,710	1,194,900
" 1884 -	41,750	1,192,800
" 1885 -	42,370	1,056,200
" 1886 -	45,310	1,131,300

Another set of figures I thought might interest you is as follows:—This is the receipt at the bank in Lombard Street on the 11th November 1886: "Coin '65, bank notes 1'65, country notes '18, cheques and bills 97'52 = 100'00." There is only one other remark I wish to make. With regard to the index numbers I wish to say that I omitted to refer to the fact that in the index numbers all reference to the cost of wages and living and so on is omitted, and I thought it would be interesting to refer to a paragraph in Mr. Strachey's pamphlet, page 9, in which he gives the results of the cost of living in the Hamburg hospital, and it comes to this, that if the years 1847 to 1850 be taken as 100, the cost of living has risen to 232, which is certainly a most surprising result; and that as to the rent of houses in Hamburg if the year 1850 be taken as 100, the year 1885 comes to 208, which is also I think a very remarkable result.

7803. (*Mr. Barbour.*) Does he say whether there is any improvement?—There is an improvement, but he thinks that the administration has always been "scrupulously economical," and during the period taken the same system of purchasing and doing business has been observed.

7804. But the patients may be better treated?—They may, but it is an enormous difference of the cost. I think I mentioned that I thought the *Economist* figures were much injured by there being two cotton figures in the index number, but really there are four. I should particularly ask the attention of the Commission to pages 11, 12, and 13 of Mr. Forssell's book on the question of the index number. "If, with this reservation, the table of prices of the *Economist* is closely examined, it is found that the prices in the twenty-two columns there represented during the periods in question, as compared with the same prices during the period 1845–50, which are taken as 100, give the following proportional figures:—

1851–60. 1861–70. 1871–5. 1876–80. 1881–85.
 " 114 141.₃ 127.₆ 115.₅ 104.₃
 " These averages, as well as the yearly prices quoted above, seem at first sight to prove that prices have considerably declined during the last 10 years, not only when compared with the speculative era 1871–75, but still more in comparison with the previous

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" period of 1861-70. What, then, is more probable, than that the increased supply of gold during the 1850 period was the principal factor in the rise, that affected all prices in the following decade, or that the declining production of gold since 1870 has caused a change in other directions, and from 1880-85 has exercised its full influence in depressing prices? Visibly, the gold is depreciated when its production increases; again, it is appreciated when its production decreases. The *post hoc* is almost irresistibly converted into a *propter hoc*. The truth about these phenomena presents itself as plain and palpable as any complicated economical process can be, and may be demonstrated by means of statistical average-curves or figures. But beware of statistical averages! How treacherous they may be, in all their attractive simplicity, it will be particularly easy to show in the present case. Thus, for instance, it is only necessary to remove *one* link from the chain, in order entirely to destroy the evidence obtained from the above series of figures. The article *Cotton* plays a most important part in the *Economist* price-tables. It represents as many as four numbers out of the 22, that is, more than a sixth part of the total. But the price of cotton and cotton goods rose 100 to 300 % in consequence of the American war, and not through any superabundance of gold. If, therefore, we only exclude these four articles, our figures undergo the following change:—

1851-60. 1861-70. 1871-75. 1876-80. 1881-85.
114·0 125·3 128·4 119·5 107·0

" If we also exclude tobacco, which rose to thrice its former value during, and in consequence of, the American war, the proportional total index number for 1861-70 sinks to 119. By such slight changes the enormous rise in prices, which seemed to distinguish the years 1861-70 wholly disappears. In its place the period 1871-75 is coming up as the highest point of the series. From this point the fall in prices during 1880-85 is nevertheless yet very considerable."

7805. (*The Chairman*.) When the Commission adjourned on the last occasion you were giving some facts with reference to the fall in value of various articles contained in the index and other lists, as explained by circumstances affecting the particular articles. I think the last one you had dealt with was copper?—Yes. It seems almost needless to refer to iron and coal. The rise in 1873 was so extraordinary and abnormal that hardly anyone would expect that the then price would continue, or anything like that price, or that it was necessary to suppose that any question of money would enter into the price. But the figures given in Mr. Wells' article are very extraordinary. I will read one or two: The production in the United States for instance increased in one year from 1885 to 1886 by 1,638,803 tons, or 40 per cent., and in our own country the increase has been very great indeed in the amount of iron in the last few years. In 1870 Sir L. Bell told the Royal Commission that the world's production was 11,505,000 tons, which increased to 14,345,000 tons in 1872. "From that date the production continued almost stationary until 1879, when it was 14,048,000 tons. After 1879 an extraordinary change became apparent in the volume of the make, for during the ensuing five years the average make was 18,000,000 tons, and in 1883 it rose to 21,063,000, or nearly 50 per cent. more than it was in 1879." It is rather difficult to avoid mixing actual facts as to the fall with the causes of the fall, but I have referred later on to some figures as to iron which perhaps it might be convenient to bring in here. Sir Lowthian Bell's figures are very interesting, and he says that he thinks nothing has contributed so much to the fall in iron as the discovery of new and cheaply-worked supplies of iron ore, both here and abroad. I would only mention a few; in the north-eastern district the tons of ore were, in 1860, 1,483,000; in 1884, 6,103,000. In Scotland they had slowly fallen off between 1860 and 1884; in

Wales they had fallen off; in Staffordshire they had increased by 300,000 tons; in Cumberland they had increased by a million and a half; in Lincolnshire they had increased from 112,000 to 2,628,000; and the imported ores had increased from 23,000 in 1860 to 3,153,000 in 1884. But the total consumption by foreign countries is a very curious point. Sir Lowthian Bell considers that in 1870 there were received from the United Kingdom by foreign countries, 3,472,000 tons of iron; in 1884, 4,308,000; but the make of foreign nations had increased from 5,602,000, in 1870, to 12,469,000 in 1884; therefore, the total consumption by foreign nations, including their own make, and what we sent them, had increased from 9,074,000, in 1870, to 16,777,000 tons in 1884. And it is not, perhaps, very satisfactory to find that we are rather falling back as regards our proportion of the make of iron, but I do not think we can be surprised at that. I do not want to dwell on those figures, excepting to say that I think they show an enormous fall in the value of the article, without any money question whatever. The same remark applies to coal. Of course, coal has fallen greatly, but the production of coal has quadrupled since 1850, and the price of course has fallen since 1870-72 very rapidly.

7806. (*Mr. Birch*.) Do you not consider that that enormous rise in 1872 opened out a great number of new mines all over the world?—Yes, a great number in our own country and in other parts of the world.

7807. For instance, great mines in Spain, in the United States, and elsewhere that were known to exist, but would not pay to work, were then opened up?—Yes. Mr. Wells says that, "The increase in the product of the five chief coal-producing countries of the world, Great Britain, the United States, Germany, France, and Belgium, from 1870 to 1886 inclusive, has been in excess of 80 per cent.; Great Britain increasing her product from 109,000,000 tons in 1870 to 159,351,000 in 1885; and the United States from 38,468,000 in 1870 to 112,743,000 short tons in 1886. On the other hand, the amount of coal displaced from use in the United States in 1886 by the introduction and use of natural gas is estimated by the United States Geological Survey at 6,353,000 tons, valued at 9,847,000 dollars. In Germany the increase reported was from 36,041,000 tons in 1873 to 55,000,000 tons in 1883." I think those figures also prove distinctly that the cause is one of the simplest in the world.

7808. (*Mr. Barbour*.) I suppose there must have been a great increase in the demand for coal simultaneously with the increase of the production?—There has no doubt been a great increase in the demand, but the fall was so rapid that it is impossible to believe that it could have anything to do with money. The capital was poured in. I remember myself being told by various people at the time, 1872, 1873, of the great fortunes they were making out of their coal, but in about three or four years we heard no more about it. One man told me in our own office in Lombard Street that he had sold the whole of his make to a gas company at 2*l.* a ton for a twelvemonth.

7809. (*Sir T. Farrer*.) And there also have been great economies in the use of coal?—Very great indeed.

7810. And very great economies indeed of iron in the use of steel?—Yes.

7811. (*The Chairman*.) Then what is the next article?—The article of wool is perhaps the next article. I do not know that it is necessary to refer to it minutely, but there has been there an immense increase. According to Mr. Wells the increase in the world's supply of raw wools from 1860 to 1885 was about 100 per cent. I think if that figure be correct, there can be no doubt whatever about the cause of the fall. I remember Messrs. Windeler and Bowes, who are a very great authority in this trade, gave some remarkable figures, which I think I have quoted, as to the state of the wool trade. Mr. Wells says that "the wool clip of the United States increased from

"264,000,000 pounds in 1880 to 329,000,000 in "1885." There has, of course, been a great demand for wool, but there has also been an excessive supply. Formerly, I remember we used to discount a great number of bills for Americans who came here to buy wool. They used to get credits and bring them here to discount, and then buy the wool in the English market. Latterly we have seen much fewer of those. I suppose America is getting to be more self-supporting in the matter of wool than she was.

7812. (*Mr. Birch.*) You are probably aware that an enormous amount of wool now goes direct which formerly used to come through this country, goes direct from Australia?—I notice a great falling off.

7813. A very important change has taken place in the wool business?—There is another interesting trade that I would like to refer to for a moment, that is, paper. Both in America and in England, the falling off in the value of paper is astonishing.

7814. (*Sir John Lubbock.*) You mean the price of paper, do you not?—The price of paper has fallen so much. Mr. Wells considers that paper has declined, since 1872, to the extent of fully 50 per cent. There are great complaints, in this country as well as in America, of the falling off in the value of paper. One great cause, of course, has been that new materials have been brought to bear. Then, in the glass trade, window glass is another illustration. Now, of course, that is a very important article, and there has been an extraordinary fall in the value, but it has arisen from the great improvement in the mode of making the glass. I inquired of a maker of fine glass in reference to the best glass, and he said there was very little change in the price of the best glass, but that the ordinary glass had gone down. I remember quoting the *Times* as regards the falling off in the value of glass in Charleroi, where the result was that there was a sort of revolution from the change in the supply, and that was in consequence of a most extraordinary invention which is there described. I do not want to go more minutely into other articles. It seems to me that when you go through the list you find the same everywhere, that there have been ample causes for the fall throughout the whole list of articles, one after the other. As you examine them, you find special reasons why they have fallen, and where there are no special reasons, sometimes you find even an advance, and sometimes the article is stationary. I mentioned the other day the case of cotton. That has been remarkably stationary in price since we got rid of the effect of the American war upon the cotton trade, and, as the Commission have heard from others, there are other articles which not only have not fallen, but which have a tendency to rise during the very period when we are told that gold has been scarce, and that in consequence of that scarcity there has been a great fall of prices. Well, of course, if the fall in prices was caused by a scarcity of gold, the effect should be, practically, on all articles, not merely on certain articles out of the list, but on all important articles, and you do not find that to be the case.

7815. (*Mr. Chaplin.*) You said just now that there was sufficient reason to account for the fall in price in almost every commodity?—So far as I am aware.

7816. And apart altogether from any scarcity of money?—I am only speaking about the scarcity of gold. What I meant was, the more you examined into each article which has fallen, the more clear it becomes that there are other causes which have led to the fall, and that there is no occasion to go to money in order to account for the fall.

7817. Among those causes you include the rate of exchange?—Yes, I think there are cases where the rate of exchange has had the effect of increasing supply.

7818. (*The Chairman.*) You come now to exceptional cases where the prices have not fallen?—Yes, but I should like to refer to what Mr. Tooke has said with respect to former cases of great fluctuation of prices. I cannot expect the Commission to read

Mr. Tooke's history of prices; it is much too long a book, but there are passages in his work in which he analyses the causes of fluctuation at previous periods, which I think are well worthy the attention of those who have such an important question before them. They show most clearly that there were in former times, before this question arose at all, most extraordinary fluctuations of price, far more wonderful than those which we see now.

7819. You mean at the time that there were no monetary changes?—Well, when the monetary changes were unimportant at any rate, but when there were extraordinary fluctuations owing to war, and various changes of that kind. I will mention one or two.

7820. (*Sir T. Farrer.*) And seasons especially?—Seasons. In regard to corn that was what he laid great stress upon throughout his book. Of course the condition of things at the end of last century was peculiar. At this time people seem to think fluctuations are very bad, but what we should have done at the time of our forefathers I cannot think. To quote my own words, p. 33, note, "It can hardly be disputed that fluctuations of price were more severe in former than in recent times, the influence of modern discovery tending towards far greater uniformity of supply in different parts of the world. At any rate, fluctuations were formerly excessively rapid and violent, as may be seen throughout Tooke's great work. If supplies fell off, they could not easily be filled up before the days of steam and telegraph, nor could a superabundance be easily removed. So, in the early days of the century, a good harvest would cause a terrible fall in corn, and a bad year would be followed by famine prices. The history of British India is full of illustrations of an excessive diversity of price under one Government, and there can be no doubt that the railway, the steamer, and the telegraph have done more to prevent local famines than any action of Governments." Now take these few figures:—Cotton, in 1782, was from 2s. to 3s. 6d. a pound; in 1800, 2s. 3d.; in 1810, 2s.; and in 1822 it fell to 11d. Copper was 84s. a cwt. in 1782; 140s. in 1800; 160s. in 1810; and 100s. in 1822. Iron was 6l. a ton in 1782; 5l. 10s. in 1800; 8l. in 1810; and 6l. in 1822; but it rose to 12l. in 1825. Rice was 25s. a cwt. in 1782, with a duty of 7s. 4d.; 40s. in 1800, when it was free; 30s. in 1810; and 20s. in 1822. Sugar was 50s. a cwt. in 1782, with a duty of 12s. 3d.; 35s. in 1800, with a duty of 20s.; 40s. in 1810, with a duty of 29s.; and 30s. in 1822, with a duty of 27s. Tea was 5s. a pound in 1782; 5s. in 1800; 3s. 6d. in 1810, with a 96 per cent. duty; and 3s. in 1822, with a 100 per cent. duty; and wheat was 50s. in 1782; 100s. in 1800; 90s. in 1810; and 40s. in 1822. And then there was a very great outcry in regard to the ruin that was coming upon everybody, and very shortly after that there came a bad harvest, and everything was put on its legs again, as far as the condition of the agricultural world was concerned.

7821. (*Sir T. Farrer.*) A bad harvest was at that time good for the agriculturist, a good harvest good for other people?—Mr. Tooke goes through many cases where he gives the number of millions added to the agricultural interest by the rise in prices. And some of us can recollect when wheat was 90s. a quarter and upwards, and how great were the changes in our own times. And no one will suggest that these fluctuations were caused by anything but ordinary commercial or political causes. I say that from a careful analysis of the prices that I have made, it seems that in all these cases, without an exception, one can find ample causes for the fall in price, without going to the question of money at all. With regard to articles that have risen or tended to rise, there is no doubt, till a very recent period, meat for instance was very high, and I think Mr. Chaplin will bear me out, that up to 1883 meat was very high indeed, and the price of stock was very high.

7822. (*The Chairman.*) At all events you say as high as it was in the period prior to 1873?—Yes, and a great deal higher than I can recollect. But what I

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mean is that beef is a first-rate article, and if gold was scarce, and was to drive everything down, beef ought to have fallen. When I first began housekeeping I paid 6d. a pound for my beef.

7823. (*Mr. Chaplin.*) It has fallen very much now?—That has been a sudden fall. Everybody was complaining of dear meat for a long time.

7824. A gradual fall. Sellers are all complaining of low prices of stock?—That may be. I think up to 1883 stock sold well and meat was very dear. Mr. Chaplin says a gradual fall, but a very decided fall has taken place in a short time both in the value of stock and meat. I should just like to read this list of articles, the comparison of 1854 and 1884, in all of which cases there was a tendency to rise:—Bacon, beef, brandy, butter, cheese, cocoa, coffee, cotton, currants, eggs, hides, oats, oxen, pepper, potatoes, raisins, sheep. It is a very curious list, but I take it as I find it. Those are imports into the United Kingdom. And then there is another list:—Beer, cloth, fire-arms, fish, horses, leather, salt, silks, spirits, yarn (cotton), yarn (linen). Those are exports which between 1854 and 1884 tended upwards, the same date as the others. Now all I say is without pledging myself to every one of those cases as very important, they seem to me to destroy the theory that you have a cause which is always tending to depress prices all round. If it was so, it seems to me that such a number of articles, in the absence of some very extraordinary causes in each particular case, would have tended downwards with the others. Why they have not tended downwards with the others is easily explained, I believe, by the fact that there has been a very large demand for many of these articles.

7825. (*The Chairman.*) And no such increase of the production as to necessitate a fall?—In the cases that I have referred to before there has been an immense supply which has driven the article down, but as I said, if it was some overwhelming cause like the scarcity of money, surely it would be universal and obvious in its effect.

7826. (*Mr. Chaplin.*) You tell us that these imported commodities that you name have risen between 1854 and 1884. Are you in possession of figures to enable you to tell us what they have done between 1873 and 1884?—I have not those figures at hand at the moment. I could easily procure them.

7827. You do not know whether they have risen since 1873, or whether they have fallen?—Some of them have certainly not fallen materially.

7828. Some of them may have fallen?—Some of them may have fallen, but I cannot tell you exactly how that is.

7829. Then you cannot tell us what really has happened to these commodities since the time when silver was demonetized?—I am very sorry it did not occur to me to do that. I would have done so with pleasure. But as regards many of these articles it is notorious that they are still high, some of them, I apprehend, not so high as they were in 1884.

7830. But still what I want to get at quite clearly is this, that as regards these commodities which, you tell us, have all risen between 1854 and 1884, as between 1873, when silver was demonetized, and the present time, you are not able to tell us whether some of them have not actually fallen?—I have not got the figures before me at the moment which tell you that, but I could easily procure them for you.

7831. (*The Chairman.*) Is there any other specific article to which you wish to call attention?—I do not know that there is any special article that I wish to mention particularly. I only mention this fact, that some articles have risen as not to be lost sight of in the question of prices, but I must say I give much more importance to the fact that the great fall can be explained in each case without reference to the question of money.

7832. In your judgment what have been the causes, speaking generally, of the recent fall in prices that are not related to the scarcity or plentifulness of money?—Well, I think one considerable cause has

been that we have now, since 1873, come into the full effect of competition with other countries. I think before that time the condition of Europe and various circumstances had tended to this result, that we did not know the full effect of the competition to which we were exposed as a nation, and of the inventions and discoveries which, even up to that time, had been made, and, of course, there have been many inventions and discoveries made since 1873. But I think since the Franco-German war was concluded, during the long peace, we have realised, as it were, our position, and the competition between one nation and another has become intensified to an extent unknown in former periods in the history of commerce, and that is one cause which has led to a great fall in prices in some of the greatest articles of consumption. Then the second cause, which to my mind is the important cause, are the inventions, and above all things, of course, the inventions arising out of the use of steam and the telegraph. I sometimes think that we hardly realise, until we examine into it, how prodigious has been the change in the times in which we have lived as regards the supply of articles.

7833. That, it would be said, had occurred prior to 1873?—I should like, if this is the right time, to refer to that remark. It is quite true that some inventions had been made before 1873, but I do not think that they had come to their full bearing till after 1873. I should like to read a general observation made by Mr. Laughlin in his remarkable essay in *The Quarterly Journal of Economics* of Boston on that question (April 1887, p. 339). He says:—"Surely no one will contend for a moment that improved processes in particular industries will not lower the value of commodities relatively to gold, if gold has remained unchanged in its conditions of production. This would lead one to suppose that the prices of many articles before 1873 must have shown a fall, had it not been for the vast extension of speculation and overtrading and the influences of the new gold. But now that the inflation and abnormal conditions of the previous period have been left behind, the effect of improvements has become more clearly apparent. In fact, when one considers that, with all the unparalleled development of cheapening processes since 1850 in almost every industry which ministers to human wants, prices are no lower or, by the Hamburg figures, even 10 per cent. above the level of prices in 1847-50, one is penetrated by the conviction that prices are still buoyed up by the high tide of an abundant gold supply. Else why should prices not be much lower than in 1850? 'If, under such circumstances,' says Cairnes, 'prices did not fall, that could only be because money had not remained the same, but had fallen in value.' Or it would be more correct to say that the cost of producing money had fallen; for, if prices are now nearly the same as in 1850, in reality the cost of productions of both commodities and money has fallen, leaving them relatively to each other in very much the same position as in the beginning. When we once fully apprehend the influences of the progress of society on prices we cannot admit that a fall of prices is connected in any necessary way with a scarcity of gold." I do not know whether it is necessary to go with much minuteness into what is so clear, but I think some things mentioned by Mr. Wells, as referring to the railways, are very interesting. I referred to several of the facts in my paper, but I prefer to give another authority rather than my own. He says, speaking of the reduction of the cost of transportation: "The investigations of Mr. Atkinson show that, 'had the actual quantity of merchandise moved by the railways of the United States in 1880 been subjected to the average rate per ton per mile which was charged from 1866 to 1869, the difference would have amounted to at least 100,000,000*l.*, and perhaps 160,000,000*l.* more than the actual charge of 1880. Comparing 1865 with 1885, Mr. Atkinson further shows that, taking a given weight of goods to be moved from Chicago to New York, 1,000 miles by the New York Central Railroad, 58 per cent. of

" the original value was absorbed in transportation and depreciation of the currency in the former year, while in 1885 only 20 per cent. was so absorbed, the charge per ton per mile having fallen from 3.45 cents in 1865 to .68 of a cent in 1885. The fall in price for the carriage of commodities by sea has also been as remarkable as the decline in the cost of carriage by land. Freight, on the average, between Calcutta and England had experienced a decline of about 50 per cent. in 1885 as compared with 1875. In the case of Indian wheat transported to England *via* the Suez Canal, the decline in freights was from 71s. 3d. per ton in October 1881 to 27s. in October 1885, or more than 63 per cent. Between 1873 and 1885 the tolls and pilotage on the Suez Canal were reduced to the extent of about 33 per cent.; but this, it should be mentioned, is an element included in and not additional to the decline in freights. Freights from New York to Liverpool declined from 1880 to 1886 as follows (maximum and minimum): On grain, from 9½d. to 1d. per bushel; on flour, from 25s. to 7s. 6d. per ton; on cheese, from 50s. to 15s. per ton; on cotton, from ¾d. to ¼d. per pound; and on bacon and lard, from 45s. to 7s. 6d. per ton. Subsequently, prices recovered somewhat, but by no means to the extent of the rates current in 1880 and preceding years." I do not think it is necessary to dwell very minutely upon that excepting to this extent, that it is a fact which is of the very first importance; I think it is perfectly clear that but for the railways, the wheat from the western states of America could never have come here, and but for the cheap freight by sea probably it would never have come here. And so with India. Indian wheat would never have come here but for the low rates by railways in India and the low freights of steamers. I know it will be said those would not have been brought here but for the exchange. I am not to discuss that for the moment, but it is obvious that no fall in the exchange would have brought the Indian wheat if there had not been also this extraordinary reduction of charge for carriage both by land and by sea.

7834. (*Mr. Chaplin.*) You have told us of the fall in the cost of transport in the case of Indian wheat, could you tell us what proportion the fall in transports bears to the value of the article imported, that is to say, what was the original cost of transport and the value of the article?—I cannot tell you that; but I was talking in Manchester the other day to a gentleman largely engaged in the cotton trade with India, and he told me that the reduction in the rate of freight by railway in the last few years had, in many cases, been as much as 50 per cent. as compared with the old rate by railway.

7835. (*The Chairman.*) Yes, but Mr. Chaplin asks if you can say what proportion the rate bore to the cost of the article?—I cannot off-hand say, but I could easily discover that for you by inquiry.

7836. (*Sir John Lubbock.*) You have spoken of exchange several times; do you mean exchange strictly so called, or are you alluding to the fall in silver?—I was alluding to the fall in silver affecting the Indian exchange; I was not referring to anything else but that, and also according to Mr. Gibbs' view, affecting the shipments from Chili and Russia.

7837. A fall in exchange, strictly speaking, is quite a different matter, is it not?—Yes. Now I mention some figures with regard to the shipping. I looked at the Joint Stock Returns for 1883, and I found that there were three millions and a half paid up by shareholders in one year in limited shipping companies, besides bogus companies, and Mr. Williamson, whose testimony I am very glad to take, because he is opposed to me on this question, says:—"That the combined capacity of our sailing and steamships was in 1875, 9,975,000 tons, and in 1883, 14,646,000 tons," an increase altogether "wild and unjustifiable," and that of course has led to an immense reduction on freights. It may be interesting to give the figure of 1874 and of later years as regards

the net tonnage of the United Kingdom in the Eastern trade.

REGISTERED NET TONNAGE sailed from the United Kingdom to India, China, and other Eastern Ports, and the Australian Colonies.

		Sailing Ships.	Steamers.
		Net Tons.	Net Tons.
During the year	1874 - -	1,626,792	654,498
" "	1875 - -	1,640,858	710,560
" "	1876 - -	1,640,704	723,039
" "	1877 - -	1,772,298	862,919
" "	1878 - -	1,484,368	751,595
" "	1879 - -	1,462,073	808,208
" "	1880 - -	1,646,559	1,125,991
" "	1881 - -	1,577,774	1,606,841
" "	1882 - -	1,493,955	1,587,400
" "	1883 - -	1,333,046	2,072,427
" "	1884 - -	1,325,151	2,145,635
" "	1885 - -	1,448,961	2,274,767

And then of course everybody knows there is an extraordinary economy, so that one steamer will probably take as much stuff, with the same labour, as two would have done a few years ago. All these things, combined as they are with a great saving of capital through the mode of doing business by telegraph, have led to a complete revolution of business, a change so great that one often wonders that the disasters have not been greater in the commercial world.

7838. (*Sir T. Farrer.*) You are now speaking, are you not, of changes that have taken place since 1873. I mean you are rather addressing yourself to that point?—Well, I say since 1873, and also the result of inventions that took place before 1873, which have developed especially since 1873. It is absolutely impossible to draw a line and say that these things only began to operate in 1873. I do not think anything of the kind; they have been freely going on, gradually developing, and I think the full effect of the inventions is now being felt in a way it never was before.

7839. (*Mr. Chaplin.*) Do I understand you to say that in your opinion the effect of the great changes in the inventions of science is felt and has been felt more since 1873 than it was before?—I think decidedly more for one reason if for no other, namely, that Germany has developed in an extraordinary degree since the Franco-German war. That alone has been a continual cause of anxiety to English merchants; I mean the great development of German industry and enterprise. France is also active in certain respects; all these countries are competing with us.

7840. And you hold it is only since 1873 that their full effect has been felt?—I think their effect was decidedly felt before, but it has been felt more since; and I attribute that a great deal to the comparative quiet that we have had, and the removal of the chances of war from the German mind.

7841. (*Mr. Barbour.*) But would not the great burden of the French and German military system affect them in their competition with England?—Undoubtedly it does. I do not know what the power of Germany would be but for that.

7842. And France has suffered from that cause?—France is suffering terribly, no doubt. I think the competition with England, if Germany and France were like the United States, would be far more intense than it is now. With regard to the telegraph, I should like to mention an anecdote which is of some interest, I think. In the year 1877 I met at Pitlochry, in Scotland, a partner in one of the first houses in the Eastern trade, and in the American trade, and he said to me:—"I can do my Eastern business with one-fifth of the capital I used to do it with." I said, "How is that?" "Oh," he said, "everything is done by telegraph, and there is no necessity to keep the stocks

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" of goods that used to be kept, and I do my business " with comparatively little money. I bring the money " home." About the year 1882 I mentioned this remark to his brother, who was a member of the House of Commons, and he said:—"Yes, it is quite true, " but the difference now is that our function is " gone, nobody needs us at all; a great deal of our " business has gone away, and a small man in Manchester telegraphs to a small man in Calcutta, and " the business is done without the intermediary " of the great merchant at all, and practically with " hardly any capital except the capital of a bank " advancing money on documents, or something " of that kind." So that the change in the trade, especially with the East, is great. I suppose the same thing would apply in the American trade. I remember Mr. Morgan saying to me, some years ago, that he did not believe in the American trade, that there was one-third of the bills running that there used to be in the old days for a given amount of business, so much of the payment and so much of the work being done by telegraph. I suppose you must consider that a great advantage to the world, but it produces great inconvenience and loss to individuals.

7843. (*Mr. Birch.*) I do not exactly see that; will you explain where the loss to individuals would occur?—Well, where a merchant loses his business, I mean.

7844. (*Mr. Montagu.*) Two small merchants would get it perhaps?—Yes, but the big merchant loses the business, does he not?

7845. (*Chairman.*) Is there any other point on this appreciation of gold which you wish to observe upon?—There is only one thing. I have heard it said, "We do not want to raise the prices by making this change."

7846. Is not that coming rather into the question of bimetallism?—No, I think not, except that they are so closely mixed up together. I only want to make one observation. It was said to me one day by a very intelligent man, "I do not care about raising prices, but " what I do want is to prevent a further fall." Well, if the description I have given and the description which is elaborated in these papers of Mr. Wells is true, I cannot imagine how any such change as is proposed could prevent such falls as we have seen in prices through the causes which have been mentioned. I do not think, supposing we wanted to check a fall of prices, that we could depend upon effecting any such change through altering money in any way. If prices do not depend upon the condition of money but upon the condition of credit, on supply and demand, on rapidity of production, and on rapidity and cheapness of distribution, then to alter the value of money in any way would not prevent a fall, and would not have prevented a fall, so that really we come back to the great question, about which I am anxious to bring out the view that I have taken, namely, that price does not depend mainly, and depends only exceptionally on merely monetary questions.

7847. (*Mr. Chaplin.*) Do you hold, for instance, that the suspension of the Bland Bill in America would have no effect upon the prices of commodities?—I am not prepared to say it would not have a temporary effect in this way, that if you repeal the Bland Bill you might put upon the market a great amount of silver. What the effect of putting on the market a great mass of silver would be, I cannot say. I think it very likely that it would depreciate silver even more, and might for a time cause great disturbance. I have never said changes of money would not cause temporary disturbances; what I say is that the permanent changes of prices are dependent not upon money, but upon supply and demand.

7848. I gather from your evidence that, except in a very small degree, you do not attribute the fall in prices in any way to the scarcity in gold?—No, because I began by saying that I do not think there has been a scarcity of gold, and that it is begging the whole question to say that the fall of prices is caused by the scarcity of gold.

7849. (*Mr. Barbour.*) Would you also say that if there had been a scarcity of gold it would not have had much effect upon prices?—Well, I should imagine cases where it might have great effect if it produced discredit in a country.

7850. A temporary effect?—A temporary effect, and a very important effect. We have seen a very large fall in prices in 1857 when gold was very plentiful.

7851. It was recovered from?—It was recovered from.

7852. But you think that scarcity of gold would not have an effect upon prices?—I do not think it would permanently.

7853. (*Chairman.*) If it were large enough to support the credit which it now supports, or any increased amount of credit which increased business might demand?—Yes. It might be interesting to the Commission if I mentioned that when I first came to Lombard Street it was a common thing to have the bank reserve down to 4,000,000*l.* or 5,000,000*l.* for weeks and weeks together. We got accustomed to it, and the rate of interest was six and seven per cent. for a long time; but by degrees people have got afraid of that state of things, and now we consider it a bad thing if we have less than 10,000,000*l.* of reserve. I mention that only as showing that I do not deny that gold has an important effect as a maintainer of credit.

7854. (*Mr. Chaplin.*) Then I understand you to hold this opinion, that an addition to the monetary mass of gold in the world would have but very little effect upon the prices of commodities in general?—Yes, but you must bear in mind there is this qualification. Take, for instance, the Australian discoveries. You have a sudden influx of precious metals. You may have a great demand for commodities, and that may cause a very active business to arise, as did happen after the discovery of gold, but it did not in my opinion permanently affect prices, except indirectly, by causing great demand for commodities. It was not the quantity of gold *quâ* gold, but it was the excitement of business, the speculation that it caused, and the demand caused by the enormous consumption of the miners and other people connected with the discoveries.

7855. But then you do admit this much, at all events, that a large addition to the monetary mass of the world would, even though only indirectly, probably create some rise in prices?—I think it did create a rise in prices.

7856. You admit that the discoveries of gold in California undoubtedly produced a rise?—But I dare say you are aware that it was nearly 100 years before the Spanish American discoveries in the middle ages had any effect whatever on the prices in Europe. That is what I think is laid down by Adam Smith.

7857. (*Sir T. Farrer.*) And that at a time when there was no such development of credit as there is now?—It would be much quicker now than it was then, because with the communication of the world the whole thing would operate much more quickly.

7858. And be more quickly exhausted?—That may be.

7859. (*Chairman.*) On the point Mr. Chaplin just asked you about, if the increase in the production of gold simply arose from an increased supply from existing mines now in process of being worked, so that the supply was, we will say, doubled in that way, I understand you in that case to think that no material effect would be produced on prices?—I think if you had a very rapid and constant production of gold leading to excessive demand for all kinds of commodities, it would affect prices.

7860. Supposing the supply were doubled, and rose from 20,000,000*l.* to 40,000,000*l.*, the world's supply now, but got from the same mines simply by an increased production, that might create perhaps 20,000,000*l.* additional demand for commodities, but that 20,000,000*l.* would form but a very small proportion of the total demands spread over all commodities all over the world, and might not, you

think, produce any sensible effect?—It might produce no great effect now, because the total amount of gold now is so far greater. I think I proved to you from Tooke, as far as I could prove anything from quotation, that adding 174,000,000*l.* between 1848 and 1856 had no sensible effect on prices whatever, and that upon a total stock of gold of 560,000,000*l.* in the world. Now you are far above that; therefore, an addition of 20,000,000*l.* is a much smaller per-centage, and would not produce, I think, any material effect upon the condition of prices.

7861. But would you compare as to its effect the 20,000,000*l.* with even the existing stock of gold; would you not have to some extent to compare it also with the credit which is supported?—Oh, certainly. I should have said that as regards the influences upon prices. If I am right in my view about the causes which influence prices, the total that you have to deal with is so enormous that it is very difficult to calculate; because the credit which is floating about in this country, for instance, is an aggregate, in comparison with which the bullion that we possess is a mere nothing.

7862. (*Mr. Chaplin.*) What you mean, I understand, is this, that the mass of actual legal money as compared with the commodities of the world is trifling?—That is quite true; but then I think I explained last time that what you have to consider is not merely the strict money, the bank notes and the gold, but you have to consider the cheques and the bills, and the credit which does the business of the world. Now we have had in our own country hardly any increase in the bullion held by banks in the last 40 years.

7863. But although the bullion, as you term it, is comparatively small, I yet gather from you that any large addition to the gold of the world, any large fresh discoveries of gold either in existing or new mines, would indirectly have a certain effect on the price of commodities?—I think it might. I do not prophesy that 20,000,000*l.* might have any sensible effect, but it might have some effect, judging from what happened in Australia and California.

7864. Judging from what happened in Australia and California, you think it might have some effect on prices in the future, though not a large one?—I think I explained where I think we have gone wrong in our views about prices is this, that we dwell upon the quantity of money as the great factor, I do not believe that it is the great factor.

7865. Supposing that instead of large new discoveries of gold the silver which has been demonetized was to be remonetized by law, would that have the same sort of effect as you think that large new discoveries of gold might have?—I should think it excessively difficult for any man to prophesy what the effect would be. I think, if I am not anticipating what is coming afterwards, that one effect might very likely be that we shall lose all our gold.

7866. I will put it in this way to make it clear. If by fresh legislation you restore to silver the same legal financial position that is now occupied by gold at a given ratio between the two, would that have anything like the same effect as large discoveries of gold?—No, I do not think it would, because I do not think that as far as I can make it out there is any such large amount of silver as would have any important effect.

7867. I am not limiting myself at all to the silver that is already coined or in circulation, but I am speaking also of the silver in the mines as well. I want to know whether, if the silver in the mines and the silver in circulation was all given by legislation the same position as that which is now occupied by gold, would not the effect be the same as large fresh discoveries of gold?—The last output of silver that I have a record of was, I think, about 20,000,000*l.*, rather more than 20,000,000*l.* I cannot pretend to prophesy what the effect of that would be upon prices. I do not know.

7868. At all events, you are not prepared to say that it would not affect prices?—No, I would not like

to say it would have no effect, provided it did this: if it produced a great additional demand for commodities. The mere addition of so much money without the result of an extra demand for commodities would not, I believe, affect prices much.

7869. But you think that the addition of a large sum of gold indirectly would have a certain effect upon prices, and now I understand you to say that if silver was made a legal money in the same way as gold that that would have the same effect?—I think it is extremely difficult to say, because I say that, taking by far the most careful analysis ever made of the first discoveries of gold, which were enormous between 1848 and 1856, Mr. Tooke says that though gold was of course money at once, it had no effect upon prices. Now that being so, I am not going to pledge myself to say that even the remonetization of silver, of the new silver, would have a serious effect upon prices; I am not at all sure that it would.

7870. (*Chairman.*) But supposing you remonetize silver at the existing ratio—say 20 to 1, would you explain how that could have any effect in raising prices?—You would have so much more money of course, I suppose, to work with; that would be the only way in which it would operate.

7871. How could it operate, because now the man who has the silver could turn it into gold or get credit for it at the ratio of 20 to 1; how could your remonetizing it at the ratio of 20 to 1 have any effect upon prices?—I am not at all sure that it would. I cannot see how silver turned into money would be different to silver as it is now. Take a miner at the present moment. He sells his silver, he gets money for it, he gets the power of buying other things as it is now; would he be in any different position if you called it money? I apprehend all that would occur would be this, the man would get rather more for his silver than he would get now.

7872. (*Mr. Chaplin.*) What does gold derive its value from now, its legal status or its intrinsic value?—You raise there a question of extreme difficulty, that would be a very large question to enter upon.

7873. But it is the question that you have been arguing. What I understand you to say is this, that if you gave silver the same legal status as gold occupies in this country just now, that its value would not be increased?—Well it would be increased to a certain extent of course, because the man would get more at the mine than he does now.

7874. (*Chairman.*) Would he if you monetise it at its present ratio? My question was if you monetise it at its present ratio could that have any possible effect upon prices?—I do not see how if you put it that way he could get more than he does now for his silver.

7875. (*Mr. Chaplin.*) You admit that large discoveries of gold, either in fresh mines or in existing mines, would probably add something, though not much, to the prices of commodities?—For a short time they might, judging from the effect of the Australian discoveries, where I am told that they had, at first, some effect. But I wish you clearly to understand that in 1856 it was the opinion of the best authorities that it had no permanent effect on prices whatever.

7876. Well, then, I will ask you this; in your opinion would the adoption of what is known as the bimetallic theory have the same effect, whatever that effect may be?—Well, my reply must be this, that I do not believe that an increase of the amount of money in the strict sense of bullion or coin would have a permanent effect upon prices. It might, judging from the effect in Australia and California, have an effect for a short time, but having regard to the very slight effect, if any, which was caused by the immense discoveries of gold between 1848 and 1856, I do not believe that the change proposed, though it might cause immense inconvenience and confusion of all kinds, can be depended upon to materially raise prices.

7877. Then it might raise prices temporarily?—I cannot make a prophecy as to what would happen,

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but I think it is conceivable that such a great change might cause, at first, a great speculative feeling. I believe the price of stocks and shares, for instance, might be materially affected. Suppose the immediate effect was to cause a large addition to the banking reserve of the Bank, for a time it might cause an idea that we were going to have very abundant money for a considerable period, and that might raise stocks and shares very much, but I greatly doubt whether it would have much effect upon the price of commodities.

7878. And I suppose might produce speculation which might affect the price of some commodities at all events for a time?—Yes, but a violent speculation would be certain to be followed by a violent relapse, which would cause a great fall.

7879. But whatever the effect was or whatever it was caused by, you think that the adoption of the bimetallic system would have the same effects as large discoveries of gold?—I am not prepared offhand to say that it would, but I think it is possible that it might have a considerable effect, and that is one of the things of which I have been fearful lest it should have the effect of inflation, causing the idea that we were going to have a new supply of money in the money market; and we know very well that if once that idea got abroad, stocks and shares would be affected, though I apprehend that the price of stocks and shares is very different to the price of commodities, as being much more influenced by other causes than are commodities, and I believe that in the end the real price of articles would be settled by supply and demand, and not by any alterations in the standard.

7880. That is permanently?—That is permanently.

7881. But temporarily they would be affected?—I can conceive a change temporarily taking place, and I think any man would be very foolish to attempt to prophesy what the exact consequence of such a change would be.

7882. (*Mr. Barbour.*) When you say it would cause great variations do you refer to bimetallicism at 1 to 15½ or at the ratio of to-day?—I mean anything which would give the idea that we were going to have a new supply of money, that is, stuff on which the Bank of England must issue notes; anything which gave that idea in the monetary world would in my opinion tend to cause inflation and speculation.

7883. But do you think that if the market ratio of to-day were adopted that there would be any such impression as that?—I cannot tell you. I think very likely there would. That is one of those things as to which it is very difficult to prophesy what the consequences would be. I am very much inclined to agree with Mr. Montagu, that the consequences might be much less than you suppose in that way, but they might on the other hand be very serious, because you would have an addition of 20,000,000*l.* yearly as I understand it. The silver from the mines would have a different position in this country to what it had before.

7884. (*Sir John Lubbock.*) You expressed the opinion the other day, at question 7722, that the public have a most exaggerated idea of the effect of the quantity of money on prices. "I believe, speaking generally, that the quantity of money has remarkably little to do with it, except so far as it affects credit, and that the great factors in all prices are the supply and demand of the article you are going to deal with." And you have expressed the same opinion to-day, I think, several times; but would you not admit that the price of, say cotton in gold, depends on the supply of and demand for cotton on the one hand, and gold on the other, so that the relation between the two would depend on changes in the supply of and the demand for cotton on the one hand and gold on the other?—No; I doubt it.

7885. Why should you think that the relation between the value of gold and of cotton would depend upon the changes in the supply of and the demand for the cotton, and not on the supply of and the demand for the gold?—Well, I consider that the prices are

affected far more by the condition of credit; far more than they are by gold.

7886. That I grant. I quite admit that the supply of and the demand for the cotton would be much more fluctuating than that for gold, but as there must be fluctuations in the supply and demand for gold as well as the supply and demand for the cotton, although in much less degree, I fail to see why you should consider that the relation between the two was affected by the change in the supply or demand for the cotton, and was not affected by the change in the supply or demand for the gold?—It is clear that any one year's supply of gold compared with the total gold floating is very small, but the supply of cotton being used up every year, any addition to the new supply is of great importance.

7887. Granted; and that is the reason why, as I admit, the supply and demand for cotton would have a much greater effect upon price than the supply and demand for the gold, because in the one case the supply makes so very much less difference upon the stock, but still, so far as it goes, would you not admit that the supply of and demand for the gold must also affect the price?—I cannot connect the two things. The price of cotton depends on the supply and demand in the cotton market. No man asks about the gold when he goes to buy cotton.

7888. Then I may take it that you are prepared to affirm that although the relation between cotton and gold does depend upon the supply of and demand for the cotton, it does not depend in any way upon the supply of and demand for gold?—I do not think it depends in any way on the supply and demand for gold, excepting when that supply and demand affects credit, and the condition of the money market, so that a man, for instance, going to buy cotton is afraid to buy. That has arisen before now, everybody wanting to sell and nobody wanting to buy because the Bank of England is in trouble, that is to say, the reserve in the Bank of England is too low, everybody is frightened, business is affected, credit is bad, and so the market is affected; but as to any direct connexion between the quantity of gold and the quantity of cotton I, judging with the greatest care possible, and upsetting all my own old theories, fail to see it.

7889. You contend, if I understand you rightly, that the low rate of interest which has prevailed of late years, disproves the view that there has been any appreciation of gold?—I say that it points very strongly in that direction. I do not know that I used the word that it disproved it. I certainly think that, judging from a very constant watching of the money market, the evidence goes to show that there has not been any scarcity, seeing that ours is a bullion market, and that if we want bullion we have to raise the rate of interest to get it; and we have had to raise it less within the last 13 years than we had in the 16 years previous.

7890. And you think you cannot have an appreciation of gold and a low rate of interest?—I did not say that.

7891. I rather understood you to think that the low rate of interest was an argument against there being any appreciation of gold?—I think it is, so far as it goes, that it tends to show as a matter of fact that there has been no scarcity, and I understand the appreciation to mean that it is scarce. I think that the low rate of interest tends to show that there has been a sufficient supply.

7892. (*Sir T. Farrer.*) Sufficient in proportion to the demand?—Yes.

7893. (*Sir John Lubbock.*) Let me put this case to you; you do not deny the possibility of an appreciation, but you think that the evidence is against it; that is what I understand?—Yes.

7894. Well, the rate of interest between two contiguous countries, such as England and France, we will say, would generally bear a definite relation to one another, would it not?—Well, I have often thought they did not.

7895. Could there be permanently any great difference between the rate of interest in two first-class countries?—Yes; I have known the time when we have had money dear in London and cheap in France.

7896. Just for a time?—For weeks and weeks together.

7897. Not for years?—I think for a long period about 1864 and 1865 the bank rate in France was below ours. There was, I think, a difference of three per cent.

7898. That was a very exceptional period, but as a general rule and for best bills does not the rate approximate?—I suppose the tendency must be that way, because the French will buy our bills if they get a profit on them; they do buy them.

7899. Well, supposing our gold currency remaining at the same value, supposing the French have a silver currency falling in value, would you consider that their rate of interest would fall in such a case, and ours would remain stationary?—Well, you see, the rate of interest depends on the demand for capital and the supply of capital in the money market, but that does not absolutely depend, does it, upon the character of the metal?

7900. That is just what I wanted to ascertain your view about, because I had rather thought that you had been arguing that the gold had not risen in value because the rate of interest had been so low. Then I put to you the case of two contiguous countries in which the rate of interest would be generally approximately the same, and I suppose that one of them has a gold currency which remains stationary, steady in value, the other a silver currency which falls 20 per cent. in value. I ask you then whether, in your opinion, the rate of interest would remain stationary in the one case and fall in the other?—You see the two things are not absolutely connected, because you may have the supply and demand for capital in this country, say, pretty even, and without any very great demand, and in the other country the same, though with different metals. The assumption is that prices rise in France, and in this country there is no change. Well, if prices rise very much in France, I suppose the effect would be that the French would buy goods here, would it not? I do not quite understand how you wish to put it to me. I am not quite clear what the connexion would be, because you might mean that the supply and demand for capital in the money market have not affected the rate of interest materially for a long time after you had got a depreciation of the silver. That would cause a rise in prices, and in the end might affect the money market, but exactly how it would affect the money market is not easy to trace out in the first instance without more consideration.

7901. Then in that case the rate of interest would depend more upon the amount of capital than the actual value of the currency?—I think it does; and all I said was this. I said I did not see any evidence in our money market of a scarcity of bullion, seeing that ours is a bullion market, and if we want bullion we have got to pay for it. That is all I said. I did not say that the condition of the money market was an absolute evidence that there might be no change in prices. I did not go into that question. I merely said that as far as I could see there was no evidence from the money market of any scarcity of gold. You know, of course, we cannot issue a single bank note without gold, and therefore we have to attract gold if we want the money.

7902. And therefore, whatever may be the case temporarily, the permanent rate of interest depends more upon the amount of capital than it does on the actual value of the metal of which the currency consists?—Yes, and of course it might happen that the metal might be changed. We have seen it ourselves; prices very high and a great demand for bullion, and we have seen prices very low and no demand for bullion.

7903. (*Mr. Montagu.*) At pages 7 and 8 and at the commencement of your book you state your surprise that there was no advance in silver from 1852 to 1857. I would ask you how could silver rise when France had enormous quantities of five-franc pieces available for the exchange of gold?—Well, I merely mentioned that as an illustration of the extraordinary way in which you may have a great addition to the quantity of gold, and yet no apparent change in the value of silver.

7904. But if you have a country with 100,000,000 fr. of silver available for the exchange, silver cannot rise above the price of that currency until that currency is exhausted?—Well, I know. What the operation was I am perfectly aware. I merely mentioned it as a curious illustration of how little the mere quantity of gold had to do with the price, even of silver.

7905. Then you quote Tooke, and you have said this, that the Australian gold discoveries had very little permanent effect on prices. Now are you aware that almost all the surplus gold from Australia and California went to France and to other parts of Europe in exchange for silver, and that silver was used up for exportation to the East, on account of the cotton famine, and therefore you might consider that the Australian gold actually disappeared in the shape of silver into India and China?—I do not quite understand what you ask.

7906. You adduce a statement of Tooke's to confirm the view that the Australian gold had no permanent effect upon prices in this country, but you lost sight, I believe, of the fact that the Australian gold filled the void created by the demand for silver, and consequently, could not have a permanent effect as it disappeared?—You do not mean the 126,000,000*l.* went in those years.

7907. I should think quite 100,000,000*l.*?—It may be so. I think it is a stronger illustration still of the great danger there would be in assuming that a sudden increase of gold would make an enormous increase in price, because the course of commerce is such that you do not know what the effect would be.

7908. But would it not be the case if a larger amount of gold were discovered that it would affect prices, providing that circumstances which affected the gold supply from Australia and California did not renew themselves?—I have great doubts about it for the reasons I have given.

7909. Now, you have constantly stated that there was no scarcity of gold. Would not that rather imply that there was no scarcity of currency, than that the actual metal gold was scarce?—There never is any scarcity of currency if you have credit.

7910. But I mean in the world. I suppose you infer that there was no scarcity of gold generally in the world?—I gave as an illustration the enormous increase in the reserves in the banks.

7911. Well, I am coming to that, but is it not the fact that, say, 180,000,000*l.* sterling of silver deposited in the various banks serves as the basis of the issue of paper money in those countries, and consequently renders available silver in the same way as gold, and frees gold to that extent?—It is quite true that if you were suddenly to say that no notes should be issued upon that silver it would of course cause considerable difficulty, but it does not follow upon that that gold is scarce.

7912. But supposing that from so-called natural causes silver was becoming so depreciated that it became generally discredited, the 180,000,000*l.* disappearing from all those banks as the basis of paper, would not that cause a great scarcity of gold?—Well, you are assuming that there is to be this prodigious supply of silver which is to upset everything.

7913. Not supply, destruction?—I have never advocated any destruction.

7914. Supposing silver was to cease to be the basis of bank notes?—I have never suggested that it should.

7915. I am not saying you have suggested that it should, but if no arrangement should be made

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internationally that might arise, you would then admit that there would be a great scarcity of gold?—If you demonetize 180,000,000*l.* of silver for any reason it might have a serious influence on gold, I quite admit, that is quite possible.

7916. You state also in pages 11 and 12 that the new demand for gold which arose in America, Germany, and Italy was not an absorption of gold, and did not affect the supply of gold in other countries or tend to lower prices?—I say it is not an absorption in this sense that the money went into the reserves of the banks and therefore is useful as money.

7917. But is this quite correct. Does not an increase in area or in the number of people using gold affect the supply of gold?—It may or it may not. Now in our own country it would have very little effect, because credit does the work, and we are told there is a vast increase of credit, both in France and Germany.

7918. But surely if we are accustomed to carrying sovereigns in our pockets and the number of people wanting sovereigns was increased very materially, the demand for gold would be increased?—It is not in this country. I have shown that we are going on very comfortably, and the obvious increase of gold has been as nothing in this country for the last 40 years, and look at the population and wealth.

7919. You gave in your evidence a statement in regard to the large reserves of gold in the State banks of France, Germany, and Italy. Are you not aware that those banks will not part with their gold freely?—I am quite aware of that.

7920. And Germany will put a banker in the black list if he wants to export gold?—I know it.

7921. And that in Italy you cannot get any gold at all?—I have been told so.

7922. Would you then consider these reserves of gold in these different State banks as available as if they had been in this country or in other countries where they would be available?—It is not the same as it is in this country, but they issue notes against it, I understand.

7923. (*Chairman.*) Is it not as much in circulation as if it were gold and silver that was in circulation?—It is; but you cannot get at it for international purposes.

7924. (*Mr. Montagu.*) We are not speaking of circulation but actual gold. You maintain that gold, having been sent to Germany, Italy, and America, was not “absorbed.” Now Germany issued about the same number of notes against silver in those days and therefore would it not be the fact that gold was absorbed in the sense of being rendered less available?—It is less available for international purposes than it would have been if it had been here.

7925. Or than it would have been if it had been in France, say, where they part with it at a price?—Certainly; still it has not gone out of the world.

7926. (*Mr. Fremantle.*) It would be a domestic regulation?—Yes, it would be less available for international purposes, because they will not let you have it if you want to buy it.

7927. (*Chairman.*) But suppose they issue notes to its full value, it would not matter what country it was in?—Not internally in the least, the money will be just as available for the purpose of the commerce of the country as if it was in circulation; and I maintain that gold against which notes are issued in that way is not absorbed in the sense of being put under the earth.

7928. But for international purposes would not a man take a note, for example, of the Bank of Germany in this country, which was issued against gold there?—Certainly; and he could sell that note.

7929. (*Mr. Montagu.*) What I want Mr. Fowler to tell us, is whether the effect of the resumption of specie payments on gold by Germany, and Italy, and America, and if it should be also the case with Austria and Russia, would render less available the existing stock of gold if we wanted it?—I think that for international purposes these countries have taken a very benighted course, and have tried to keep their gold

to themselves more than we should, or more than France would, if that is what you mean; but I do not think it is absorbed in the sense of being gone out of the money of the world.

7930. But you say it has lessened the available supply which this country might look forward to. For instance, it might be the case, might it not, that if Germany, and France, and Italy wanted gold, we might raise our rate to a very high figure without attracting the gold from those countries?—I have been told it is so; that the German Bank will not discount bills for a banker who takes gold away, and of course, however foolish that policy may be, it is a fact; I believe it is a fact, and in that sense of course the gold has got an infirmity with it when it once gets into those banks, but I do say that the gold is not absorbed in the sense of being gone out of the circulation of the world.

7931. Then you mentioned that people were alarmed at the withdrawal of a million of gold from the bank; that you consider it desirable that the Bank of England should have a much bigger reserve of gold, and that it might pay the country to enable the Bank to have a larger reserve of gold; would it be possible, under the circumstances that I have stated, largely to increase the reserve of the Bank?—It is all a question of paying for it, in my opinion. I only made that as a casual remark, that I thought that our system was worked rather close sometimes, and that I have known the time when a million of money going from the bank caused interest to be raised and a great deal of disturbance and loss, and that I had made a remark casually many years ago, I think it was to Baron Rothschild, that I really thought it would pay the country to pay the Bank of England to keep a bigger reserve. I do not use it more than as an illustration.

7932. Is it not the fact that the withdrawal from the bank or adding to the reserve of the bank of two or three millions of gold, changes the money market completely? In your experience in later years have you not found that the withdrawal of two or three millions of gold from this country will tighten the money market, and raise the rate to a very high point in the endeavour to keep it?—There is no doubt that that has been so occasionally, but I must say nothing like so much as it was when I first came to Lombard Street. In those days, when the reserve, as I said just now, was kept at say 4,000,000*l.*, 5,000,000*l.*, or 6,000,000*l.*, a very slight export of gold caused a complete disturbance. At the present moment the reserve of the bank is very rarely under 10,000,000*l.*, and the consequence is that we retain a far more steady money market than in those days.

7933. I asked you last Monday if you could estimate the burden cast on trade by a rise in the bank rate of one or two per cent. Have you been able to arrive at any conclusion?—I have not. It is very difficult to say how many bills are going at any particular moment, I mean to say in the market, how many bills are waiting for discount, how many bills are discounted each day. You would have to calculate that, and then the currency of the bills would have to be considered. I think it would be an enormously difficult calculation.

7934. And besides that of course there would be the additional charge on all loans on the stock exchange, and the loans made by them to their customers?—The total additional charge to commerce of one per cent. upon the bank rate in certain states of the market must be a very large amount of money undoubtedly, but you are perfectly well aware that there are other states of the market where the Bank of England is almost powerless, and even if it raises its rate one per cent., the rate upon bills is hardly altered at all.

7935. Do you not think that with that burden thrown upon trade gold is purchased somewhat dearly, I mean the one, or two, or three millions that we endeavour to attract here?—I perfectly agree with you there. Ever since I have had to do with the money market,

I have said that I thought we kept our reserves much too low.

7936. And the recent rise in the bank rate from two to four, has it attracted any gold materially?—It has attracted all that was wanted, I suppose.

7937. It has not attracted half a million, I think?—I thought more than that, at any rate the money market from being tight has become quite comfortable.

7938. That rise has had the effect of increasing the bank reserve materially?—Increasing the bank reserve, certainly.

7939. (*Chairman.*) I suppose that might arise from the efflux ceasing and a small flow really taking place?—I will tell you, the real cause is that we are getting quiet about the American proceedings. We were afraid of a great demand from America. That fear has somewhat ceased by reason of the action of the Treasury of the United States.

7940. (*Mr. Montagu.*) Then you stated that you thought low prices advantageous. Do you not think that the state of transition, of declining prices, stops enterprise?—I have no doubt that declining prices are very unpleasant to those who have to produce, and that it does tend to diminish enterprise. But if what I have been saying is true, declining prices of later years have been inevitable.

7941. And the diminished enterprise and the smaller stocks of goods held, and the shrinkage of values generally, would account in a great measure for the decrease of bills of exchange, and the increase in the circulation?—I do not know. It has something to do with it, but I think, as I said on the last occasion, there is a vast increase in the amount of business done by cash.

7942. Then you spoke of the export of oats from Russia, owing to the paper exchange. Is not that of the same nature as what is complained of in the Indian exchange, and is it not the fact that the Russian rouble is maintained in value because the Government has been latterly reducing the quantity of notes in circulation?—You call it maintained; it is very low now.

7943. Supposing an international arrangement were made, say, for 20 years with the other great powers, establishing a ratio of, say, 20 to 1, that is what you allowed to be equal to 47*d.* per ounce, with identical mint arrangements, charging a seignorage of 1 per cent. on bar silver presented for coinage, directing the State banks to buy bar silver, say, at 46½*d.*, and to sell it at 46⅔*d.*, issuing notes against bar or coined silver held; do you see any objection to this plan?—I really must read that over carefully before I can answer it.

7944. (*Sir T. Farrer.*) You have been asked about the absorption of gold by Germany. I find in Neuman Spallart, a statistician of great authority, that the German clearing system, which only got into operation in 1884, had got so far in 1886 as to clear 600,000,000*l.* If this is so, does it not show that great economies of gold are in progress in Germany, and that there is probably room for much further progress?—I have no doubt that as the credit

system develops both in Germany and France, there will be a great economy of gold.

7945. And there is great room for that development in Germany and France?—Certainly. Now I will give you an illustration from what happened to myself when I was at Cannes two years ago. I was in a very large hotel,—the man was worth, perhaps, 60,000*l.* or 80,000*l.*, the whole hotel belonged to himself,—and I was talking to him one day about paying my bill, and I said, "Who is your banker?" "That is my banker," he replied, pointing to a big chest in the corner of the room. I said, "Do you not keep your money in the bank?" He said, "I lost 400*l.* by a banker who failed, and I will not keep a banking account. All my money I have here." I believe we have no conception of the extent to which that is carried on in France, the number of people who do not keep any banking account, and to whom the credit system is practically unknown.

7946. (*Mr. Birch.*) Surely the value of the currency has in a general way nothing whatever to do with the rate of discount in a country?—No.

7947. Suppose in Paris there was a depreciated currency and a full value currency in this country, would there necessarily be any difference in the rate of discount in the different countries?—They have nothing to do with each other. The discount is the price paid for a loan of capital, and its rate depends on the supply of and demand for loanable capital. Supposing there was a great scarcity of such capital in this country or in France, then the rate would be affected. What I think is if prices rose very much in France it might affect the commercial relations between this country and France if prices did not change here.

7948. A depreciated currency in France would affect the exchange with other countries, and this would be shown immediately in the exchange with England; but the rate of discount in either country need not be affected?—My answer to you would be this, that you might have a depreciated currency and yet you might have very little demand for loanable capital. You might have also prices falling and very little demand for capital, and therefore a low rate of discount, and you might have prices rising and a depreciated currency, and a great demand for capital. We have seen something like it since I can recollect in Lombard Street.

7949. Then again with regard to the relation between gold and cotton, the reason is very clear that one is the standard of value, and is an established quantity; whereas the other, the cotton, is always varying in supply. It varies year by year enormously. Day by day the price varies from an infinity of causes, but the sovereign, unless for some extraordinary reason, a large amount of gold being taken away, or a very large amount of gold coming in, would not affect the price of cotton at all?—My only objection to your statement is that I would rather call it the measure of value than the standard of value.

The witness withdrew.

Adjourned till Monday.

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THIRTY-FIFTH DAY.

Monday, 14th November 1887.

PRESENT :

THE RIGHT HON. LORD HERSCHELL, the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.
MR. H. CHAPLIN, M.P.
SIR T. H. FARRER, Bart.

MR. C. W. FREMANTLE, C.B.
SIR W. H. HOULDSWORTH, Bart., M.P.
MR. S. MONTAGU, M.P., and

MR. GEO. H. MURRAY, *Secretary*.

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Mr. J. C. FIELDEN recalled and re-examined.

7950. (*Chairman*.) There is one question I should like to ask you with reference to the evidence which you gave on the last occasion. You have given with reference to several trades the number of unemployed now as compared with a previous period; are you able at all to give the number of those in employment as compared with the same period?—I am not; but I wish to say that since I was last before the Commission I have prepared a table which summarizes the number of people that are members of societies, and the number of unemployed at each of the periods, with the growth of the societies at the same time, and the average annual amount expended in the relief of unemployed members in the years 1871 to 1875 inclusive and 1882 to 1886, and I think it is a very instructive return.

7951. Would the growth of the society in numbers, do you think, be a rough indication of the growth of the number of employed?—I think it would be rather a greater growth than the growth of employment in the country. It would be a greater growth because there is a tendency on the part of the skilled artisans more and more to join the societies, because of the protection it affords them during periods when they are out of work.

7952. But in the case of one of the societies, for example, though the number of unemployed has increased from a few hundred to upwards of 3,000, yet the number belonging to the society has increased by 20,000?—I have given the increases in this table in the societies' membership as well as the increases in the unemployed and the increased demands of the unemployed, and I have taken every society that has data that extend as far back as 1871. There are many of the societies that have not those data, and I may say that this return is absolutely corroborated by Mr. Burnett's return. Mr. Burnett is now the assistant at the Board of Trade for the Labour Department.

7953. Yes, but what I rather wanted to see was what your figures pointed to. It would be consistent with this that the total number unemployed is greater than it was, and considerably greater, though the number of employed is also greater?—If I were to summarize this return in a few words it would give you perhaps what you desire to know. This return covers 10 societies. In 1871–75 the average membership of those societies was 98,640. Now in 1882–86 the membership of those 10 societies averaged 139,338, so there was an increase in membership of 47 per cent. Now during the same periods exactly the per-centage of unemployed from 1871 to 1875 was 2·18. In the years 1882–86 the average number of members unemployed was 7·22 per cent. so there had been a rise in unemployed over the whole of the area of these 10 societies of over 5 per cent.

7954. Yes, but that would be consistent with the total number of employed being much greater in the later period than the earlier?—I can give you some

details to show that employment is not growing very rapidly.

7955. (*Mr. Chaplin*.) I think you said last time that the population was growing four times as fast as employment?—In Lancashire, in the cotton districts.

7956. (*Chairman*.) The growth of the employment has to some extent diminished, has it not, in recent years by vastly increased economy of production?—There are always such tendencies. For instance, in a bad time the tendency is to increase the speed of machinery and to improve machinery. As profits diminish and vanish this tendency becomes greater.

7957. And that has been the tendency of late years more than in the earlier periods?—It has been the tendency for 50 years, but it has been intensified of late. I could summarize almost in one word what would show the position of the cotton districts. The machinery engaged in the cotton trade in the cotton districts has increased 18 per cent. since 1874, but the employment has only increased about 5 per cent.

7958. (*Sir T. Farrer*.) Do you mean by machinery the number of spindles and the number of looms?—The number of spindles and looms has increased 18 per cent. Looms have increased 21 per cent. and spindles 14; so that, taking the average, the spindles and looms have increased 18 per cent., but the employment has only increased a little over 5 per cent. That is, the number of workpeople engaged in the mills is only 5 per cent. more than it was in 1874.

7959. (*Sir W. H. Houldsworth*.) Dealing with your question with regard to the numbers employed for the same work, that would tend to lessen the cost of producing the article?—Undoubtedly.

7960. And would not the natural tendency of that be to increase generally the consumption of the article, so that those who were thrown out of employment by this improvement of machinery would naturally, if matters were in a healthy state, be taken up again by the greater development of the trade?—If there was nothing to stop the legitimate development of our trade, there is no doubt a cheapening process would tend to extend our trade. I mean we have always found in the cotton trade that anything that cheapened largely the cost of production began also to extend the area of consumption and thereby give increased employment.

7961. (*Chairman*.) But is it not conceivable, without any other cause to account for it, that you might have an increase of population and the increased economy in production proceeding so rapidly as to outstrip the increase of the number required for employment?—I can quite conceive that we are tending in that direction, and even if we have the most ample facilities for our trade, population is increasing so rapidly as to outstrip the possibility of employment; that is the natural tendency. On the other hand the question arises, whether anything has come over our business that has distinctly arrested its usual develop-

ment? Now we can see a continuous development up to a certain period, but then we can also see quite a decided stoppage in 1874.

7962. I do not quite understand the sense in which you mean a distinct stoppage, because you tell us that since that time the amount of machinery has increased by 18 per cent., and that the total amount of machinery did, at all events, a greater amount of work than was formerly done?—Certainly.

7963. I do not quite understand how that shows that the development has abated?—I ought to have said a distinct falling off in the rate of increase. That, perhaps, would be a better expression.

7964. Of course you are aware that, quite apart from any currency questions, there are other causes which it is suggested may have contributed to that, such as increase of industrial activity in Germany, and of late years greatly increased activity in America, too, and consequently more competition?—Well I have paid a very great amount of attention to foreign competition, and I may say this, that we have never had a successful competitor in a neutral market for the cotton trade before this silver difficulty. Germany may manufacture under her tariffs, the United States may manufacture under their tariffs, that is the point to consider. The United States, like India, grow their own cotton, but they are obliged to protect themselves by a 35 per cent. duty against our goods or else we should invade them completely.

7965. Yes; but I am not referring only to competition in neutral markets; but did we not formerly send goods to markets which did not manufacture themselves?—For instance, if you take from 1861 to 1885, the growth of the Continent of Europe in the consumption of English cotton goods is 70 per cent.

7966. What is the evidence, then, that the growth of trade has been checked?—My evidence is to this effect: that if you take from 1861 to 1874, we have a considerable growth, but from 1874 that growth diminishes.

7967. Can you tell me how much the machinery had increased from 1861 to 1874?—I cannot tell the machinery, but I can tell you the consumption of cotton, and that means the employment of the machinery.

7968. (*Mr. Montagu.*) You say unemployment has increased from 2 per cent. to 7 per cent. odd. That 5 per cent means that the number of unemployed has trebled?—That is so; there is no doubt that is so.

7969. Therefore it is not a rise of 5 per cent., according to you it is 200 per cent.?—Well, of course it is 5 per cent. on the number employed.

7970. It is three times the number of unemployed?—Yes.

7971. (*Chairman.*) The other is the more accurate way, the per-centage is more important; for instance, if you have three unemployed and nine employed the number is trebled, and yet it is not a very important matter. But do the pauper returns indicate what amount of skilled labour is out of employment?—The pauper returns, to a very great extent, are only the returns affected where every member of the family is out of work. For instance, it is a well-known fact that rather over two persons in every working family are employed in this kingdom. The average number of workers is a little over two per family. Now it is quite clear that if one member of the family is out of work that the other member or members would still obtain sufficient earnings to keep the family above the rate per head under which they are admitted upon the pauper returns, and that is why the pauper returns form no real index to the state of affairs as to the number of unemployed.

7972. (*Sir T. Farrer.*) You said that the consumption of cotton shows a diminution since 1874 that it did not show before. I have here the net quantity of cotton imported into the United Kingdom as given in the Report of the Depression of Trade Commission. These are the figures for the different periods of five years:

NET IMPORTS OF RAW COTTON.

		Annual Average.	Per Head of Population.
		Million Cwts.	Lbs.
1865-9	-	8.1	29.8
1870-4	-	11.2	39.3
1875-9	-	11.0	36.6
1880-4	-	13.2	41.8

7972a. Do those figures bear out your statement?—I have only taken the last 20 years. From 1866 to 1870 is my first period of five years, and I go up to 1881-5, which completes my last period of five years. The total quantity of cotton retained for home use—that excludes cotton which simply comes to the ports and is sent out again—in the period 1866 to 1870 was 4,955 millions of lbs. The next period 1871-5 was 6,396 millions of lbs., showing an increase of 1,441 millions of lbs. Now we come to 1876-80, and we have 6,348 millions of lbs., being an absolute decrease of 48 million lbs. as compared with the previous five years. And 1881-85 7,178 millions of lbs., being an increase over the former period of 830 millions of lbs. Now these figures show a distinct falling off in the rate of growth.

7973. But do you not think that as regards the growth between the first two periods the fact that the first period had just been preceded by the cotton famine may have had something to do with the great increase in the second period?—I do not think so, because the normal condition of the cotton trade was restored before 1870.

7974. Was it completely restored by 1866?—Probably the first year only of that period would be a deficient year so far as cotton supply.*

7975. A comparison between 1866-70 and your next period is hardly a fair average as representing the normal rate of increase?—I think it is quite likely that the year 1866, out of the five years in the first period, was the only year in which there was any limitation of cotton for use, by the fact that they had not restored the growth of cotton after the American Civil War, but all the rest of the period was a very busy period, with the machinery fully employed.

7976. Yes, but would it not be an extra busy period, even on account of the previous lack of the material?—Well, I think myself that there is all the forces at work now for a very much larger trade if we had had an opportunity of doing it without exchange fluctuations.

7977. (*Chairman.*) Is your view that if you found, between any two successive periods of four years, an increase in the production of 30 per cent., you ought to expect to find, notwithstanding improvements in machinery, or economy of production, a growth of 30 per cent. going on in every succeeding period?—I do not absolutely say that the cotton trade must of necessity increase 30 per cent. in any given time, but what I say is this, that in the period antecedent to the separation of the standards you had a certain growth which is here clearly shown. Now since that period you have had nothing like the same growth; that is my only contention.

7978. You take that date because you find a different state of things before and after the date when the change in the standards took place. Now have you looked at the last poor law returns? Are you aware that the date when the change of the standards took place is the date fixed for comparing pauperism, because up to that time, in every year from 1858 to 1873 it was greater than in any year from 1873 down to January last?—Will you allow me to say once for all with regard to my figures that I never pick figures to illustrate an argument. These figures are the natural periods; they are not picked at all.

7979. I was not suggesting that you had picked them, but you were assuming that because you found a state of things before 1873, and another state of things

* I have since examined the figures for the period 1866-70, and I find 1866 was a full average year without a scarcity of raw cotton.

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after 1873, that it was in consequence of a monetary change made in 1873. I was only pointing out to you that that argument would go to prove that the monetary change in 1873 had diminished pauperism for many years subsequently?—With all due respect, at present I only say that my facts are concurrent with that change. By-and-by, if necessary, I will show the connexion. With regard to the question of pauperism, I hold that the pauper returns are no index of the state of employment in this country. There are many reasons why. I have already explained one. I say that the poor law returns are a measure of absolute destitution, and that there are an enormous number of agencies at work to prevent a real, genuine, respectable operative reaching the parish.

7980. (*Chairman.*) That is just what I was suggesting to you, that the pauperism returns would not be an indication of the amount of skilled labour out of employ particularly, because they have their funds and a variety of other resources, and do not come upon the parish readily?—There never was a time, probably, when I should say there were more agencies at work to assist the people. As a matter of fact people's hearts have expanded. I am speaking now from a very large acquaintance with the people, and also with people in good circumstances, so that the pauper returns can only be regarded as a measure of relief to those operatives who when out of work have no friends and no members of their family in work, in fact the friendless and only those in absolute destitution. Now in regard to the imports and exports, in considering these I noticed one reply of Mr. Giffen before the Commission on the Depression of Trade which is calculated to create a most mistaken notion, and that is that the growth of imports and exports indicates the growth of employment. He wished the Commission to understand that the growth of population in this country is about one per cent. per annum, and then he proceeds to show between 1865 and 1885 a growth in the consumption of raw cotton of 60 per cent. Well, bearing in mind the previous remark of one per cent. of increase of population it looked as if population had only grown 20 per cent., while the consumption of cotton had grown 60, and therefore that there must be abundant employment in these districts. Now, as matter of fact, the error in that is that first he takes a special trade, and in taking that special trade, which is localised, he should have taken the population growth in that particular district, which is 45 per cent. during that 20 years instead of 20; and then, in the next place, you have to take into consideration the constantly improving machinery that tends to a bigger output without giving additional employment, and thus you get an entirely different conclusion.

7981. Have the economies in the production, changes in machinery, and so on, which have diminished the number of persons employed for a given production effected any economy in the amount of the material employed?—Well, I should think that is another point which would also show as against the employment of the people. During very high prices of the raw material every cloth is skimmed and cut down; with cheap prices you get better articles made, because more people can afford to buy them; with cheap raw material you get a better cloth, and more cotton is used for a given amount of employment, therefore the growth of the use of cotton would not indicate an equivalent growth in the employment on this head alone, because it is a fact beyond all doubt that cotton goods are now made with more cotton in for a given yardage than in the same yardage before 1874.

7982. You have given us, I think, now all the figures that you were prepared to lay before the Commission?—I desire to put in this summarized statement of the 10 trades, and it is only limited to 10 leading societies, because I could not get similar data for more, showing the growth of membership, the want of employment, and the actual amount paid in relief per annum by these respective societies at the same periods. (*See Appendix.*) And I desire to say

in the first place that I have only given 10 because there are no more than 10 to be had, not because they are selected; and in the next place I desire to say that in my opinion these 10 represent the skilled artisans of the country, and that the state of employment is worse outside the trades unions than in them.

7983. These do not cover the whole of the trades of the country, do they?—Not at all.

7984. You have not any of the woollen trades, I think?—There is not. The cotton trade is not included in this at all. There is not a single society in the cotton trade of what you may call a trades-union character in the ordinary sense of the word. They do not give relief to those out of employment, with the exception of the spinners, the weavers not having a single organisation where they can relieve those out of employment, unless it be through a breakdown or a calamity. Then the society bears the payment until the place is repaired, that is all. These are miscellaneous societies of different occupations covering a pretty large amount of ground, and based upon this return it would indicate that we have about 700,000 people out of work in this country.

7985. That is estimating that all other trades are as bad as these?—It is assuming that this is a representative case, and taking the number of people unemployed and comparing it with the people employed.

7986. (*Mr. Chaplin.*) Can you give us any estimate as to the number of men that are in employ?—Yes, about 9,000,000, excluding domestic servants. I could give you, if you like, the employments as they are classified in 1881 by the census. I have taken my data from the census as far as employment is concerned.

7987. (*Sir T. Farrer.*) Employed at what?—Oh, all kinds of artisans, skilled and unskilled, engaged in agriculture and all our other trades, and I think agriculture is a little worse off than our cotton trade. The total number is 9,000,000 of men, women, and children that are employed in the country earning wages, and the 700,000 is the estimate based upon those. I venture to say that those societies are more than a fair representation of the case. They take a great deal more care in getting the unemployed members off their books by finding them work than is possible for the people that are outside the unions.

7988. (*Chairman.*) Yes, but take the woollen trade, is that in as unprosperous a condition as any of the trades you have mentioned?—I know a little of Bradford only; at times Bradford has been in a very bad state during the last 10 years.

7989. Yes, and at times in a very prosperous state?—Certainly. They are bad now, I take it, because last week they passed a fair trade resolution. I am a thorough free trader. I have only to say with regard to the completion of the employment question that I put in a Table, which shows the growth of quantities of raw cotton retained for consumption in our factories for 20 years in periods of five years, the growth of the population of Lancashire, and all the comparative statistics of the cotton trade with regard to population, spindles, looms, operatives, &c. (*See Appendix.*)

7990. (*Sir W. H. Houldsworth.*) I think the bearing of your evidence on the examination we are making here is with regard to whether wages have all fallen since 1874. Now you have given us evidence that there is a very much larger amount of want of employment than there was before 1874. Would that, in your opinion, mean that though the wages rate were exactly the same, there is an increased want of employment, and that really wages have fallen?—Wages necessarily fall through an increase of want of employment, that is one of the conditions precedent.

7991. And we may take it from you that though the lists that we have access to and the rates that we have access to may not appear to have fallen, still the fact in Lancashire is that the wages received by the working classes have considerably fallen by the want of employment?—I gave an estimate in the previous examination covering the whole of the cotton trade,

and based upon the most accurate data, that the fall in wages in Lancashire was 15 per cent. in the cotton trade, and that the fall had been mitigated by increased earnings through speed of machinery, and improved machinery, to $7\frac{1}{2}$ per cent., so that it had been practically divided. And then I also stated in my own estimate that the average loss through want of employment in the cotton trade was 5 per cent. Mr. Andrews, who is perhaps the best authority upon the spinning trade in Lancashire, the secretary to the Employers' Association, estimates that at $8\frac{1}{2}$ per cent. I only estimate it at 5, so that the only estimate besides my own is a very much larger one than my own; so that really I estimate the loss to the cotton trade operatives, taking irregularity of employment, and taking the fall of wages, at $12\frac{1}{2}$ per cent.

7992. (*Chairman.*) That is taking into account that it is $12\frac{1}{2}$ per cent. less to the increased number who would or might now be employed. In arriving at that per-centage you take into account the increase of population?—I do not take into account the fact that there is a very large increase of people who cannot get work. It is simply the loss to those who are in employment from irregularity of employment and the fall in wages. You know in the cotton trade you can have very great irregularity of employment and still have the factory running full time.

7993. Yes, but I mean the number upon which you arrive at your basis is larger than the number in the earlier period?—21,000 larger. It was about 483,000 the number of persons engaged in the cotton trade and it is now 504,000. It has taken 12 years to grow employment for 21,000 people in the mills.

7994. (*Sir W. H. Houldsworth.*) But may I take it that what you mean to convey to us is that through the want of employment, although the list rate remains the same, that effect has been produced which would be equivalent to the rate being reduced $12\frac{1}{2}$ per cent.?—I wish to say on that, that the list rate is absolutely reduced 15 per cent.; it is an established reduction upon the list of 15 per cent.

7995. (*Chairman.*) I observe something in your table which does not altogether accord with an answer you previously gave. You put here the period 1861 to 1871 as that of the cotton famine. Now I understood you to say a little while ago that the effects of the cotton famine had entirely ceased after 1866?—In this table I have simply given the population of Lancashire for 80 years, in ten year periods, and I have explained that the period 1861 to 1871 was that of the cotton famine, showing that there was a less increase of population during that period of ten years and that the reason that accounted for it was the cotton famine.

7996. Now I should like to ask in your view does that increase, taking the last ten years, 1871 to 1881, entirely arise from population, owing to the birth rate exceeding the death rate, or does it result from migration into Lancashire?—It results also from the fact that agricultural employment is constantly diminishing, and we keep absorbing the surplus from farming districts. You have a diminution in the number of people supported by agriculture from 1851 to 1881 of from 4,000,000 down to 3,000,000, so that country people who cannot find work mainly come into the textile districts of Lancashire and Yorkshire, and we have a constant migration, and we cannot stand it unless we have our trade perfectly free.

7997. (*Sir T. Farrer.*) With regard to those figures, are they from the census, the 4,000,000 and the 3,000,000?—Well, I cannot just state for the moment, but I think you may take it that I have based it on the census.

7998. (*Mr. Chaplin.*) To summarize what you said upon the question of employment, I think your evidence comes to this, that the loss in real wages to the workmen employed in the cotton trade amounts to $12\frac{1}{2}$ per cent.?—That is so.

7999. And that holds good with regard to the various other trades that you mentioned?—I think much more, because those that are engaged in

mining and in some of the midland counties, such as the Potteries down to Birmingham, are in a more distressed condition.

8000. So that in some of the other trades the loss is even considerably greater than that?—As to the building trades, I have put in Mr. Neill's statement, and he says the loss in the building trades is 1*d.* per hour, that is 14 per cent.

8001. And concurrently with this loss in wages I understand you to say that there is a great and growing number of people out of employment altogether?—Concurrently with this loss of wages, employment has not grown in its usual proportions, while population has, and therefore that there has been an increased pressure among the working classes.

8002. What I mean to ask is this, that besides the loss in wages to those people who are in work there is a vast number of people out of work altogether?—Yes; there is not the growth of trade, and consequently there is not the same opportunities of getting work; there is a larger number of people necessarily kept out, seeing that the population increase is constant.

8003. Amounting, I think you said, to 700,000 or 900,000 unemployed out of 9,000,000 employed altogether?—My estimate of 700,000 is based on the strict proportion of the 10 societies put in; but at the Trades' Conference at Wolverhampton the delegates representing all the principal trades estimated those out of work at 900,000, and I think they are very much nearer right than I am.

8004. Well now you speak with very great knowledge and an intimate experience of the condition of the working classes, and I understand you to say that it is an entire delusion to suppose that the working classes have been gainers by the fall in prices since 1874?—What I say is that there is a certain section of economists who believe that the working classes have suffered nothing practically from the changes that have taken place. Supposing for a moment that we attribute the fall in prices to the fall in silver or to the fall between gold and silver, these economists think that they have before them a period when the working classes are open to be cut down in wages, their working hours extended, and a lot of changes that will enable them to fight the battle of foreign competition and restore profits. And I say that has already taken place, that this loss has already fallen upon them. In the case of commodities the wholesale fall does not represent the retail benefit, and I say also that upon a large proportion of the expenditure there has been no economy whatever, and that therefore the actual reductions and loss in wages that have taken place are fully equivalent to any cheapening of commodities to them. That is my case as far as the working men are concerned.

8005. It practically comes to this, that on the balance you think the working classes are the losers?—I think on balance they are the losers, and I think, to show this clearly, that on considering the question for the working classes, whenever you consider cheapness, which is a very important thing, you must also consider that employment is much more important. Cheapness is a very important thing, but employment is more important.

8006. I understand your view to be that, as regards the cotton trade, the injury which it has sustained in some respects arises from the competition of India, which has become possible owing, in your view, to the depreciation of silver?—Yes, that is one cause, and then another is owing to the fact that all the free markets that we have in the world are silver-using countries. All the gold countries are quietly yet firmly protected against us. Now, as matter of fact, the cotton trade has 900,000,000 of people to serve in silver-using countries, and the chief portion of our trade has to go there. Now it is quite certain that their money will not buy as much. For instance, you have depreciated the actual silver in India 70,000,000*l.* sterling through this action of the separation of the

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standards. The currency that is circulating in India has gone down 70,000,000*l.* in relation to gold.

8007. What do you include in the silver-using countries?—China, India, Japan, some of the portions of South America; Egypt is partly silver and partly gold; down the Persian Gulf there are also silver-using countries. I have not got the figures, but that is roundly the figure according to the best authority.

8008. (*Sir T. Farrer.*) Is not a good deal of South America silver?—Yes; I am not much acquainted with South America, but I am extremely well acquainted with the trade to the East and Eastern Asia. I am well acquainted with all the trades in the further East known as Hither Asia.

8009. (*Chairman.*) Has Indian cotton gone down in the same way as the rupee has?—Oh, yes; in fact Jevons, when writing on money in 1875, says distinctly that if either of the precious metals goes down commodities will follow the falling metal. Well, it is quite certain that commodities have followed the falling metal, therefore the rupee for all purposes inside India is practically the same in value, and from this arises the power of India to compete against Lancashire in the markets of silver-standard countries.

8010. At present the competition of India is limited to the coarser cottons?—That is so, but it is only a question of time. They may begin to import American cotton and use it to the same advantage, or Egyptian, because, as matter of fact, the rupee question tells as distinctly on other makes as well as coarse makes, and it is only a question of time what part of our trade they will take away unless we act and secure rated money.

8011. I do not quite follow the reason why the depreciation of the rupee should enable them to import the American cotton and compete with us better than they could before?—It is because the depreciation in the rupee has cheapened everything they produce when they came to the exportation of it to a neutral market; it has cheapened all their labour in a comparison with our labour.

8012. But they would have to give more for labour in the United States?—They would have to give more rupees; then they would get more rupees back for the raw material when it is sent out in the form of the finished article.

8013. You attribute the competition of the Indian cotton mills to the change arising from the depreciation of silver; and you have also pointed out that in your view the depreciation of silver prevented consumers in India and China from giving so high a price for our cotton goods as they otherwise would. Will you now give us what you say as to the cost of production here, and then, with your authorities, what you say as to India?—The first statement that I have to put in with regard to the cost of production is for India. It is the statement of A. T. Whittle, Esq., who is himself a cotton spinner and manufacturer in India, and has carried on business there for six and twenty years—his own concern. He went out to India to establish a business there. I have the most distinct corroboration of his labour costs from other sources that have never either seen him and never known him at all. The total cost of producing 20's cotton yarn is 28·61 pies; a pie being one-twelfth part of an anna. Well, that is translated into English money about 3 $\frac{2}{3}$ *d.* a lb. for the production of 20's yarn.

8014. What do you take the exchange at to arrive at that?—That is taking the rupee at 2*s.* That includes the cost of fuel, wages, stores, interest, insurance, depreciation and loss in waste in the process of working. Every item is separated, and Mr. Whittle has given me this copied absolutely from his own books. He does not know that I am going to use it for this purpose at all. Well, in Lancashire we can produce that yarn for 2*d.*—2 $\frac{1}{2}$ *d.* at the outside.

8015. It does not include the cost of the raw material?—Oh, no; everything but the cost of the raw material. It is the manipulation. For the raw material we are on equal lines; there is no doubt

about that. For instance, if we buy our cotton in Bombay and bring it to England we get so much more for our gold in buying cotton; that is, our gold goes farther. What we gain in buying goes back in the loss on the exchange when selling.

8016. Have you not some cost beyond what they have in respect of freight and insurance?—I simply wish to say that there are just two points in which England is supposed to be at a disadvantage. One is that they grow their own cotton, and the second is that they are supposed to have cheaper labour. Now I shall show you that the outlook of our trade is very serious indeed so far as India is concerned.

8017. I think we had better keep to the question of comparison apart from loss to trade?—Now with regard to the growth of cotton and the transit from India to Lancashire, including all charges, insurance, and freight, the transit charges on the railway to the mills, the sending of the yarn back again and the selling of it, either in India or in Japan or in China, I have got the most careful estimates made in Manchester by merchants who are engaged in the trade, and you can put all that down at $\frac{3}{4}$ *d.* per lb. That is, we have got $\frac{3}{4}$ *d.* per lb. to pay for transit that they have not got to pay.

8018. (*Mr. Fremantle.*) That is, taking the rupee at 2*s.*?—Taking the rupee at 2*s.*

8019. (*Chairman.*) But are you aware that the rupee was only 2*s.* for a very brief period for the last 30 years?—I will take the rupee at the average price, 1*s.* 10*d.* or 1*s.* 10 $\frac{1}{2}$ *d.*

8020. (*Mr. Chaplin.*) They have a gain of $\frac{3}{4}$ *d.*, you say, in transit?—There is a natural protection to the Indian manufacturer of $\frac{3}{4}$ *d.* by the fact that he has his cotton there and his products in his market, so that there is always that natural protection. This is Mr. Andrews' return of the cost of spinning the same yarn in Oldham. Mr. Andrews says the whole cost of production (that is inside of the mill) would be from 2*d.* to 2 $\frac{3}{8}$ *d.* per lb. Now I state it at 2 $\frac{1}{2}$ *d.*, so I exceed Mr. Andrews' estimate. Now there is a very important item in Mr. Andrews' return. He says that the cost in wages would be $\frac{1}{10}$ of 1*d.*, that is the wages in a factory in Oldham. Now I have a letter here; it is from a gentleman connected with a very old and highly esteemed Manchester firm, and who has spent many years in Bombay. I am not at liberty to use the name, but I will hand in the letter. "My figures for the mills are in Manchester and I cannot give you the exact cost of wages per lb. of yarn, but approximately the cost for an average count of 15's is 7 pies per lb.; this includes the wages of reeling, bundling, and baling. 7 pies at 1*s.* 5*d.* exchange is $\frac{5}{8}$ of a penny. Learners begin at 1*s.* per week, and an experienced hand will get about 3*s.* per week. This last is 50 per cent. more than labourers and domestic servants can earn in towns, and 100 to 120 per cent. more than the pay of agricultural labourers, so that the work, owing to the system of shift, is relatively easy; it is evident that the introduction of factories into Bengal has been an immense boon to the natives. Instead of being oppressed, overworked, and underpaid, they have easy times, splendid airy rooms to work in, and much higher wages than they can get outside. This applies to Bengal. In Bombay they work with a single shift." Taking the rupee at 17*d.*, it absolutely costs $\frac{1}{10}$ of 1*d.* to produce a lb. of 15's in India. The letters I have handed in show distinctly the cost with the exchange at 17*d.* to be $\frac{6}{10}$ of 1*d.* for labour. Now we are $\frac{4}{10}$ of 1*d.*, so that, as matter of fact, you may take it with the exchange at 17*d.*, we are quite as cheap for labour because ours is given for 20's yarn whilst this is given for 15's in Bombay.

8021. (*Chairman.*) But is that included in your 3 $\frac{5}{8}$?—Certainly. I wish to say that the common delusion of all authorities upon the Indian mill question is this, that they think that there is very cheap labour in India. It is a fact that there is a small number of rupees paid for a week's or a month's work,

but it takes five times the number of persons in India to tent the same amount of machinery that is tented by a number in Lancashire. I am not basing this upon a single factory, but I take it upon the whole of India. Every spindle and loom they have got we could tend with 15,000 people, and it takes them 77,000. I only want to establish this position, that labour is not cheaper there and that it is not the cheap labour of India that is beating Lancashire.

8022. (*Mr. Chaplin.*) But how do you account for the necessity of employing so many more there?—Well, I apprehend that the cause to a very great extent is the long training and education we have had in this country and the better stamina of our workers. We have had 100 years of it in Lancashire, and, as I stated when I was last here, the operatives are apt and naturally very fit for the work.

8023. (*Sir W. H. Houldsworth.*) Is it not a fact that there is a smaller number in the cotton trade in Lancashire employed to produce a certain quantity of either yarn or cloth than in any other country in the world?—Certainly.

8024. The same remark applies to America as well as India?—Yes; the Indian cotton trade, growing out of monetary dislocation, which is of the same character as protection; it is attempting the growing of oranges on icebergs; it will go out whenever this currency question is settled.

8025. (*Chairman.*) The result is to show, if you are correct, that it costs something like $\frac{1}{4}d.$ a lb. less to make it in England, even with the disadvantage of having to import the cotton, than in Bombay?—If you take the rupee at its old value—2s., for which it is practically current in India—there is no doubt that we are fully $\frac{1}{4}d.$ a lb. cheaper.

8026. You always insist on taking the rupee at 2s. Is it your idea that in order to produce this financial result we must put back the rupee to a price which was only maintained for a brief period?—So far as putting back the rupee to any given price is concerned, I may say that as at all being supposed to represent Lancashire opinion either amongst the capitalists or the working men, Lancashire does not want to survive by protection in any way or shape, not the slightest. We are quite prepared to fight our battle if we have fair play.

8027. Would it not be better for the purpose of comparison to take the rupee at that which was its general rate for many years prior to the demonetization of silver, rather than at the exceptional rate which it attained then?—Well, suppose we take it at 1s. 10d., then the advantage between Lancashire and India would be $\frac{2}{3}$ of a 1d. We should still be that cheaper; and I wish to state the reasons why in a few words. We run a mill of 34,000 spindles at a cost of 800l. for coals. I have the balance sheet of one mill in India where the cost of coal for precisely the same number of spindles is 3,400l. They pay 25s. a ton for coals in Bombay, or about four times the price that we are paying for them in Lancashire.

8028. (*Mr. Barbour.*) They use English coal in Bombay now?—Well, I think so, but I have never been in India; I have to depend upon the best authorities I could get.

8029. (*Mr. Montagu.*) You say that the cost of labour in India is not the difficulty; but what is the difficulty?—The exchange.

8030. No; but you say the exchange even at 1s. 5d. only brings the labour to the same; what is it besides the labour that makes the difference?—Because, you see, when we send our goods into China or Japan or India the exchange affects not only labour, but it affects the running of your factory, it affects everything that enters into the cost of production. I only mentioned labour because there is a strong impression among those who look casually at the case—that, whilst America with its cotton could never beat us, India has got both cotton on the spot and cheap labour also, and it is from these two factors that they think

India is able to do what America cannot do, take possession of one of our markets. Therefore I want to show you that they have not cheap labour; that, taking effective production, the actual quantity put out, spread over the wages of a mill they are not as cheap as us to-day. Even with the rupee at 1s. 5d. they are barely as cheap as us.

8031. Could you give us the figures that enter into your calculation for the cheaper production of India irrespective of silver?—There are only two factors in the whole of the production in which India has any advantage, or appears to have any advantage, on the face of it. The first factor I admit at once shows $\frac{3}{4}d.$ a lb. of advantage of position; India saves that in transit communications. The second—labour—I dispute, and say that labour still is as dear in India, even with the rupee at 1s. 5d. Now in every other thing that goes to make up the cost of production India is very much dearer than we are. For instance, you build a mill, and the interest of capital and depreciation of the machinery constitutes a large item of annual charges. Well, it costs two and a half times as much money to build a mill and fill it with machinery in India than it does in Oldham. Taking the present position, even buying with all the advantage or disadvantage to-day, whatever it may be just as it is looked at. At the present time the cost of a mill in India is from 30 to 32 rupees per spindle. Now if you take the 32 rupees at 1s. 5d. it is about 46s. We can build a mill and equip it thoroughly to-day in Lancashire for about 21s. per spindle. The average cost of the mills in India has been about 3l. per spindle. With us the average is about 22s. to 25s. according to the character of the work they have to perform. Now the annual depreciation is a very serious item and the interest also that we have to charge. So far as the cost of stores, the cost of coal, the cost of the original buildings, the cost of the machinery, we have a decided advantage over any country in the world in these points and particularly over India. The only two factors in the dispute are those that I have drawn attention to besides exchange. Now I can show you what the effect of exchange is because I have prepared three examples which show you what the effect of lowering exchange has been upon the Oldham spinner.

At the end of the year 1885 good Dhollera cotton was selling in the Bombay market at 180 rupees per candy of 784 lbs. At the same time 20's yarn was selling in Bombay at 6 $\frac{3}{4}$ annas per lb. Allowing 116 lbs. of cotton to spin 100 lbs. of yarn, we have the following results:—

With Exchange at 2s. per Rupee.

	Rs.	s.	d.
100 lbs. yarn sold for	-	39·84	or 79 8 $\frac{1}{4}$
116 lbs. cotton cost	-	26·63	or 53 3 $\frac{1}{4}$
Margin for cost of spinning	-	13·21	or 26 5

or 26s. 5d. = 3·17d. per lb., out of which the Lancashire spinner has to pay the freight and charges both ways, placing him at a natural disadvantage.

With Exchange at 1s. 6d. per Rupee.

	Rs.	s.	d.
100 lbs. yarn sold for	-	39·84	or 79 9 $\frac{1}{4}$
116 lbs. cotton cost	-	26·63	or 53 11 $\frac{1}{2}$
Margin for cost of spinning	-	13·21	or 19 9 $\frac{3}{4}$

19s. 9 $\frac{3}{4}$ d. = 2·47d., out of which the Lancashire spinner has to pay transit charges as before, whilst Bombay is unaffected by the change, and has a margin of 13·21 rupees as in the first transaction. Supposing, however, the rupee appreciated to 2s. 6d., we should then find that an advantage accrued to the Lancashire spinner, thus:—

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With Exchange at 2s. 6d. per Rupee.

		Rs.	s.	d.
100 lbs. yarn sold for	-	39·84	or	97 7
116 lbs. cotton cost -	-	26·63	or	66 8
Margin for cost of spinning -		13·21	or	30 11

30s. 11d. = 3·71d. for the Lancashire spinner, out of which are payable transit charges as before.

With the rupee at 1s. 6d. the Bombay spinner has a margin of	-	3·17
With the rupee at 2s. he has	-	3·17
„ „ at 2s. 6d. „	-	3·17
With the rupee at 1s. 6d. the Lancashire spinner has a margin of	-	2·48*
With the rupee at 2s. he has	-	3·17*
„ „ at 2s. 6d. „	-	3·71*

The fact remains that the variations between the lowest and highest points are equal to nearly one penny farthing per lb.

A mill of 34,000 spindles of the most modern construction would easily produce $2\frac{1}{2}$ million lbs. weight in the course of a year of 20's yarn, therefore a variation of one farthing per lb. is equal to over 2,500l. per annum.

The cost of a mill of the productive capacity named would be 40,000l.; the effect of the depreciation of the rupee from 2s. to 1s. 5d. is equivalent to a loss of 9,000l. per annum to a concern.

I have given the cost of cotton absolutely as purchased in the market, and I have taken 116 lbs. of cotton to spin 100 lbs. of yarn. Every one of the details is worked out precisely upon that figure, that 100 lbs. of yarn is spun from 116 lbs. of cotton, and based upon $6\frac{3}{8}$ annas per lb., the price at which yarn was selling in the Indian market at the time. The Lancashire spinner and the Bombay spinner would each have $3\frac{1}{8}$ d. for spinning 20's weft besides the waste, so that practically it would be a profitable trade. It would just cover cost in India, and it would be a very profitable trade to Oldham, a margin of 3d. They would make $\frac{1}{4}$ d. a lb. out of 3d., and a profit of $\frac{1}{4}$ d. a lb. besides the waste upon such a concern would mean a very large dividend. Now with the exchange at 1s. 6d. (and it is now 1s. 5d.), the margin of the Lancashire spinner drops down to $2\frac{1}{8}$ d., rather less than $2\frac{1}{2}$ d. With exchange at 1s. 6d. he gets back $2\frac{1}{2}$ d. of a margin to meet all his costs. Now out of that $2\frac{1}{2}$ d. he has got to pay $\frac{3}{4}$ d., the cost of transshipment backwards and forwards, so that really this brings the amount available for the mill down to $1\frac{3}{4}$ d. Now Mr. Andrews tells you he cannot produce it under 2d. or $2\frac{1}{2}$ d., so that the change from 2s. to 1s. 5d. has not only knocked the profit of $\frac{1}{4}$ d. a lb. down, but it has introduced more than $\frac{3}{8}$ d. of a loss. Whereas a $\frac{1}{4}$ d. was a considerable profit, $\frac{3}{8}$ d. is a frightful loss.

8032. That is, supposing you would get with the rupee at 2s. the same amount as you would get for the rupee at 1s. 5d. ?—Exactly the same price of cotton; it is simply showing the rate of exchange, and it is proved on all hands that commodities have fallen with silver. Now if you had the other change, and there was demonetization of gold instead of demonetization of silver, I should like to know where the Bombay men would be, because then the advantage would go just the other way about, and we should then be in a position to get about $3\frac{1}{4}$ d. of a margin, whilst theirs would be growing less.

8033. (Chairman.) I am not quite sure that I understand now how the Bombay manufacturer gets the profit ?—It matters not what the fluctuation is, he buys his cotton in rupees, he pays his wages in rupees, and he goes on year in and year out and does not care a flick for the exchanges.

8034. He would not be able to buy everything in India, would he, at the same rupee price? All things imported from England he would have to give more

rupees for, would he not ?—He would be a little bit affected; he would be affected somewhat in his coal and in some of his stores. As a matter of fact, I may say this, that I think it may be taken that for buying purposes the rupee is quite as effective, and in some cases a little more effective in everything but the construction of the mill. For instance, he would have to pay more rupees for his machinery. If he came to England to buy his machinery I do not think he could buy his machinery and start his mill as cheaply as he could have done under the old rupee price, but in stores he would be about the same cost. I think that, as matter of fact, silver has retained its purchasing power and has not fallen in value, but that commodities have fallen more than silver. That is, that the fall in commodities has been rather greater than the fall in silver in relation to gold. It may be taken that these changes are upon the margins for cost of production. The purchase of the cotton is not affected at all. We buy our cotton and we get the advantage of the increased price of gold, and then we sell and we lose it again, so that on the raw material there is no change and it need not be taken into account; it is simply the costs in the factory and in transit which have to be taken into account.

8035. This is supposing the yarn to be sold in Bombay ?—Yes, and the same exactly transpires when it is a question of Japan or China. They retain their remittances if they send out to China, the 4s. dollar is equal to two rupees. There is a very small variation in exchange. When the dollar comes back to us it comes back 30 per cent. off. In fact our firm are abandoning the Indian trade and getting out of it as quickly as we can. I would not undertake to work for India absolutely free of all rentcharge the best and cheapest mill in Lancashire if this exchange difficulty is to continue. I would not undertake to work it, and I know the trade well, and was brought up in the Indian trade for our cotton goods.

8035a. (Mr. Montagu.) Is not the advantage to India diminished with regard to neutral markets as against their own market. Is the freight quite so high from here to China as it would be from here to India, and then from India to China ?—They have to pay some little charge between Bombay and their other markets, so that they can command their own market easier than they can command the other markets.

8036. Then you would want a less alteration in the exchange to maintain our supremacy in the neutral markets than you would in the Indian home market ?—Quite so. But then the next point I have to show is how far they have dispossessed us, and it is a most important dispossession. I have a table here which shows the growth of the two trades, the growth of the spinning trade in England in 20 years, and the growth of the spinning trade in India since 1876. (See Appendix.) Of course I have taken from 1876 in India, because it was a very small factor before then. The table gives all particulars, but I may summarize it in this way, that taking all the markets in the world we, with 20 times the number of spindles in this country as against India, are only growing at the rate of 6,000,000 lbs. per annum in yarn exports to all the markets of the world, and India with one twentieth of the spindles is growing at the rate of 7,000,000 lbs. She is actually growing in export of cotton yarns now far quicker than we are and with only one twentieth of the machinery. Now it has taken us 30 years to extend our export trade from 150,000,000 lbs. annually of yarn to 250,000,000 lbs., and India has grown 100,000,000 lbs. of trade out of her 2,000,000 spindles in 10 years. That is the position, and I think the conclusion is that if China and these Eastern markets are to remain to us to trade with we must be put upon reasonable lines whereby our money can be reasonably put in harmony with our customers' money.

8037. (Chairman.) You would advocate some change that would send up the value of the rupee. To what point would you propose? Of course that, you foresee, would seriously injure India ?—Oh, not at all.

* From all these have to be deducted transit charges, $\frac{3}{4}$ d. per lb.

8038. It would according to you destroy that trade?—That is a very small affair when it comes to be considered besides other more important things which you can do for India. To develop a small trade miserably depending upon a question of monetary currency is one thing, but to let capital go into India to develop railways and her soil, and all her various productions, is a very different matter, and this very difficulty is stopping the flow of capital into India.

8039. Is it not conceivable that if capital flowed into India in that very way, and developed her to the extent that you suppose, you might soon have these checks upon the natural advantages of India destroyed, and consequently India become even a more formidable competitor than she is at present?—I care nothing about competition if it comes about on fair lines, and if you relegate each producer to his own natural capacity and the position and power he naturally possesses, but do not let us be destroyed by monetary complications and dislocations. That is the position we complain about.

8040. (*Mr. Barbour.*) Do you think Indian mills would lose this advantage if the exchange continued steady at what it now is for a very long period?—Well, I think it is quite possible that we should take again a part of this trade. I think that we should put Lancashire under a great squeeze, and that we should very likely have to put the operatives under a bigger squeeze than we have done. The population is growing very fast, and I have no doubt there would be a good deal of trouble before we got down our wage-rate, but we must beat Bombay, and we could only do this after serious complications.

8041. (*Chairman.*) But to what point do you think it necessary to put up the rupee in order to create what you consider the natural state of things?—I think the disadvantage in considering any other point than the old ratio is the fact that Indian coinage and all our silver coinage and other matters are adjusted to the old rate. Of course I have read a good deal upon the Indian question years ago before I knew anything or had read about the silver question. I have read Sir John Strachey's book and many other works connected with the development of India, and there is no doubt at all about it that India is starving for capital and that she cannot get it now because of this silver difficulty.

8042. (*Sir T. Farrer.*) The capital goes to these cotton mills? It goes there because they get enormous profits through this silver question; but what about extending railways, and entering into monetary operations for the Indian Government?—I contend that India is a thinly-populated country; there is plenty of room for India to develop. Lancashire is six times as thickly populated as India to the square mile. There is plenty of room for improvement by irrigation and railways. This difficulty is starving her, for the one thing she mainly wants is capital for her true development.

8043. (*Mr. Montagu.*) You have stated that the Lancashire cotton industry is seriously threatened and is in a critical state. Is that occasioned by the present price of silver or by apprehensions of a further fall?—Of course, in the first place, we know this, with the present rupee price of silver it is only a question how much capital is put into India for developing cotton mills and taking away a considerable portion of our trade, but if by reducing wages and other economies we restored our supremacy, we cannot gauge the future of silver. We have no security until we have rated money, and then we can tell what to do.

8044. (*Chairman.*) Does that conclude what you have to say on the Indian question?—The summary of what I have to say on the Indian question is this, that, in the first place, what are the advantages of India are limited purely to the question of carriage and transit charges in the cotton trade. She has no advantage over us in labour, even with the rupee at 17d.; in all other respects her mills are dearer and cost more money to produce a given weight of yarn. I have further to say that every change that

takes place that has any relation with silver to gold adverse to silver makes the position worse for the Lancashire producer; and I have also to say that, on balance, my opinion is most decided as to the fact that India is a sufferer by this very cause, notwithstanding the gain of this as yet little portion of our cotton trade; that she is a sufferer in many other respects; that what all her exports come to of cotton goods is swallowed up by the excessive remittances of rupees that they have to make merely to pay Government charges at home, so that the trade that has been developed in connexion with cotton disappears at once, as far as the benefit to India is concerned, by the fact that her home charges would grow less with the improvement of the rupee.

8045. It has been suggested by some witnesses, that she has benefited by a great stimulation of her agricultural industry?—My own opinion is this, that an alteration of the rupee would place India upon the correct line of competition with England and other countries in agriculture. She will retain her position in supplying wheat to this market. I have gone into the Indian wheat question most carefully. India is the cheapest wheat-producing country in the world, with the rupee at 2s. The only thing that the agriculturists would gain in this country is precisely what we would gain, that India would have no competitive advantage out of money dislocation. We want to put India precisely on her natural advantages; and, of course, I maintain that the greatest obstacle to the development of India, both in the employment and in the development of her resources, which are immense, is the want of capital, and that as long as you have no fixed relation between silver and gold you will never get a big flow of capital into India for public works, such as railways, irrigation, &c. I have nothing further to say upon the Indian question.

8046. What further observations have you to make?—Well, there are one or two points that I think it is worth while drawing your attention to. Jevons, who is supposed to have been a mono-metallist, is strongly of opinion that the world must tend to one system of money. It is quite clear that the present system is like a narrow-gauge railway and a broad gauge. Every time you come to the terminals there is a lot of expense heaped up. You have got an exchange banker who is now required, and we know perfectly well what that means. An exchange banker will cover your exchange when it suits his convenience and his interest, and then it is generally not our interest to be covered. When he thinks exchange is going in the right direction for him he will sell exchange. When he thinks it is going the other way he will not sell. Now I have seen in our own business, the Eastern Trading Company, six months' profits swept away (every order having been duly placed by telegraph with the manufacturers), and all expenses gone as well, by the fall in exchange in those six months from the impossibility of covering. I do not, of course, mean that money could be all gold or all silver, but it can be rated and made one standard, as it was up to 1874. And it ought to be fully considered that we grew our foreign trade under rated money. Now we have never been right since the separation of the precious metals; we have gone from bad to worse, and although we have had little temporary fluctuations they are like the flickering of a candle with regard to industry in general.

8047. There were many times before that we were very bad, when we had, as you know, what is called the rated money existing. The rated money existed till 1873, but there were many times before 1873 during this century when our trade was very bad indeed?—Well, I have paid great attention to that question as to the number of panics and depressions we have had and this is altogether a novel experience. We have had bad times, when we have been perhaps worse than at any point, during this depression, but we have generally recovered in a year or two; but we have been going on for 12 years, and we are just about as bad as ever, and likely to continue so.

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8048. (*Sir T. Farrer.*) But we have had to deal with countries with paper money, which makes a greater difference in the exchange than silver?—Well, I am not very well acquainted with paper money, but I thought that the use of such money would be confined purely to the country in which it was issued. I do not suppose it would affect a country to which goods were sold. In this case it is like a paper money all round amongst the silver nations to a certain extent.

8049. (*Chairman.*) What was put to you was this, that the same sort of difficulty that had arisen in recent years commercially by reason of the depreciation of silver and the consequent difficulty of trading with people using silver, had existed in trade by reason of some nations with whom we traded having paper, which would produce an effect of precisely the same nature, though perhaps in an aggravated degree?—Well, I am rather a manufacturer than a banker or a financier, and I have studied this question from the point of view of a producer engaged in one of the biggest trades in this country. I know the other industries that I have examined are precisely in the same position, and the conclusion I have come to is this, and from a careful examination of the question, that if the countries of the world are to continue upon two different metals one group of countries having silver as the standard of their money and the other group having gold as the standard of their money, then you will see trade grow between those countries that have a similar standard to the disadvantage of those countries that have a gold standard, and to the general interchange of commodities which should be free and universal.

8050. (*Mr. Montagu.*) There is one contradiction in your evidence. You say in one part that you think $15\frac{1}{2}$ to 1 would be the proper legal ratio, and you have just now admitted that if the rupee were at 1s. 8d. the supremacy of Lancashire would be maintained; 1s. 8d. would be equal to about 18 to 1?—Yes; but I was simply asked what would restore our position as competitors for certain trade. My own opinion as to the convenience of going back to rated money is that you have all the silver coinage of the world practically based on $15\frac{1}{2}$ to 1, and any other ratio would lead to a very great amount of confusion. That is a totally different question.

8051. (*Chairman.*) Have you considered the special disadvantages to us first as compared with other nations in taking $15\frac{1}{2}$ to 1 as the standard? You have put the convenience to be derived from its being the ratio fixed by certain nations and the difficulty of re-coinage, but have you considered the special disadvantages to this nation by fixing that as the standard, supposing you had determined upon a ratio?—Well, I have considered this important point. I think that it is the point that so many people are frightened about, that there is to be a big lot of silver flooding the market, and that it would be giving to silver an undue price. I think it is a myth.

8052. But if you fixed the ratio at $15\frac{1}{2}$ to 1 would you not very considerably benefit those people who have a large stock of silver, and who have bought it at nothing like $15\frac{1}{2}$ to 1?—Undoubtedly, on the other hand we have India, which has more silver than any other country, even the United States with its supposed stocks of silver, and I take India to be one of our possessions, and anything that affects India affects us. We have to look to India and the far East for the future improvement of our trade. I wish to draw particular attention to this part, perhaps the very last I will have to trouble you with upon the production of silver. I think beyond all question that silver has gone down through demonetization and not through production of the mines, that is beyond all doubt.

8053. (*Mr. Montagu.*) But still there is no doubt that an advance of 25 per cent. or more in silver, supposing it were tried, would be sure to produce sudden and great changes. But is your objection to $15\frac{1}{2}$ to 1 only founded upon what other nations would have to say; if they agreed, say, to 20 to 1 or 18 to 1, then your

objection would cease, providing the rupee were raised to 1s. 8d. or near that?—My own opinion is this: first, that it is absolutely necessary at some point to have a fixity of value between silver and gold. And I would next say that that fixity would be brought about, as I apprehend that it would, by common agreement between the greatest trading Powers of the world, and that they will have a very much better judgment to what point to put it than I could suggest myself but my own idea is that the convenience of the whole world would be consulted by the $15\frac{1}{2}$ to 1 ratio because of the existing coinage, and because of existing conventional charges and prices.

8054. (*Chairman.*) America would have to recoin the whole of hers, as it is at 16 to 1?—Well, that is, of course, really a question for that conference, but I do not apprehend any serious disturbance in values arising suddenly out of a settlement of this question; whilst I attribute the fall largely to the silver question, and that consequently there would be a rise in commodities as the result of rated money again, because it would increase the available money of the world. It is very easy to understand if you have the money of the world in one scale and the commodities of the world in the other, if you take a heap of money and put it in the scale along with the commodities, up goes gold, down goes commodities. It is as plain as possible, and this is practically what has been done with silver.

8055. Is it perfectly clear that there is less money in the world now by a thaler, or a shilling, or a sovereign, than before silver was demonetized?—It is not a question of there being less money, that you have had any less money for use, but that you have got the money of Europe and the money of Asia dislocated; you have not through traffic, and consequently less effective money, and we want a common standard around which all commodities, labour, and service should find their level; this I should strongly urge independent of any of my previously stated facts.

8056. (*Sir W. H. Houldsworth.*) As I understand you, you consider a ratio of 1 to 18 would meet the practical difficulties that you have laid before us?—I believe that a ratio of 1 to 18 would be a ratio that would enable us to carry on our business and would probably not much disturb any industries that have been recently developed in India. On the other hand, it would be a very great inconvenience, I think, so far as regards re-coinage, all over the world, and having to get to and understand the fresh value of silver would lead to much confusion.

8057. (*Mr. Montagu.*) It would not be necessary probably to re-coin any of the currencies?—For instance, we have the old ratio here. You have the shilling interchangeable in every retail transaction at home, but the minute we begin to deal in our foreign business you refuse us the same advantage. Bimetallism does exist in England throughout your internal trade.

8058. 14 to 1, I think, is the ratio of our silver?—At any rate it is a rate that we well understand. If you get a different rate you alter the 1s. You may add to or diminish the rate, but I prefer to keep the relative proportions the same.

8059. Supposing the nations agreed and there was no necessity for re-coinage their currencies, then 18 to 1, or 1s. 8d. the rupee, would be quite sufficient, providing all other obstacles were overcome?—Certainly. I do not think that the great point of the question is so much the point at which it is rated as to get it fixed definitely.

8060. (*Sir W. H. Houldsworth.*) You are a merchant, and you have explained to us that the action of the exchange banks, which we have heard a good deal about in previous evidence, is not satisfactory to your mind. Now what I wanted to ask you was this, how it comes that some witnesses engaged in exactly the same trade seem perfectly satisfied with the exchange bank arrangement?—I can explain that; I will take a Manchester firm doing a business of millions a year. They can command it because of the

enormous character of their business. It pays the bank to do their business at all times. But take a small firm like ourselves, they will refuse us or not, just as it suits their convenience, but they will take all the business of a large firm, although in some instances it may yield little or no profit, for the sake of keeping up the connexion, and there is besides the very important fact that it adds a new charge for middlemen.

8061. Then you have a difficulty in making these arrangements, which the larger firms can easily do?—Yes, certainly.

8062. And you probably pay more for it than the larger concerns?—It is no problematical case. I am not dealing with the business which I manage, which is a large business; I am speaking of my position in connexion with the Eastern Trading Company, of which I am a director. It is a small company, and we are very much bothered with this exchange difficulty.

8063. (*Sir T. Farrer.*) Exchange with India and China?—Well we do with Shanghai, Penang, Rangoon, Bombay, Madras, and Calcutta, and with all these markets we have great trouble through silver fluctuations.

8064. Have you any greater difficulty with China than with India? We have been told by some witnesses that the regularity of business with India makes it more easy to deal with exchange?—Our losses have mainly arisen with Penang, but I do not think we do a very large business with China; only a little with Shanghai. I have seen the profits supposed to be secured absolutely showing a clear percentage on each transaction, week after week, and then there would take place a fall in exchange, and when we get our money we have positively got a loss and I have seen six months' profits (every transaction entered into at a profit) swept away.

8065. Is that in trading or in manufacturing?—In trading, buying and selling; this is not manufacturing. I wish to be understood. A buyer telegraphs to us, "Will you send us out a certain class of goods at such a price?" We reply, "We will take it." We then get an order for so many cases. We go into the market and place that order. We have ascertained what the price will be and we fix it up. All this is done by wire the same day. We never put down a transaction under 4 per cent. in white goods. That is considered the lowest profit we will take on white goods; on grey goods we will take 1½. I have seen us have 7 per cent. on a transaction distinctly fixed with both the manufacturer and the purchaser, and I have seen that transaction bring a loss, through nothing but exchange, in less than three months; meantime we have been refused exchange cover.

8066. Then what you complain of is not so much the fall in the exchange as the fluctuations in the exchange?—I complain of the fall in exchange having so changed the relative positions of certain sections of producers as to become a very great disadvantage to the sections of producers who are under a gold currency.

8067. But supposing that the fall went no further and that the exchange remained at what it is at present, matters would adjust themselves, would they not?—They would adjust themselves over the next eight or ten years. You would have another eight or ten years of painful experience and of gradual adjustment.

8068. Adjustment of expenses to prices?—Expenses and wages to prices. It would be by considerable suffering. It has been by considerable suffering that we have adjusted somewhat to the present ratio.

8069. It is the process of adjustment which does the mischief?—Yes, and I think I have shown that many fixed charges and conventional prices do not so adjust themselves.

8070. Then I want to ask you whether you know anything about the cotton mills in North America—in the United States?—Yes.

8071. Well, they, I believe, have been losing their business in coarse goods?—No, it has very greatly increased.

8072. But I am told they are losing their business to the Southern mills?—Well, that is practically the same, the South and the North are practically one.

8073. Where there is no silver question intervening?—It is simply this, that a man builds a mill in another part of the country, and he is a bit nearer to the cotton.

8074. Yes, and he has the negro labour?—The cotton trade with the negro labour in the South is just a mere bagatelle as compared with the cotton trade with the white labour in the North. I do not suppose they have 2 per cent.

8075. Just as the Indian trade in the coarse goods is growing, so the trade in the South in coarse goods is growing?—America cannot make fine goods yet, and the mills in the South do not increase as in the North.

8076. The coarser goods at any rate?—The great advantage that we have in this country over all the world is this, that we take the raw cottons of all the world into our free ports, mixing the good cottons and assorting the cottons to suit our various threads and fabrics.

8077-8. But you have not paid any attention to those changes in the American trade?—Oh, certainly, I know the exact position. There is an enormous growth taken place in the cotton trade of America for the supply of their own common wants, but it is in heavy fabrics, both in the north and in the south. They never make anything like the fine goods that we make.

8079. (*Mr. Barbour.*) How is it that with such a reduction of employment wages have not fallen more than they have done, say, in the cotton trade?—Well, in the first place, as far as the cotton trade is concerned, the operatives for 20 years, from 1853 to 1873, have practically remained stationary in wages during a long period of the good times. The manufacturers are naturally reluctant to touch the wages of their workpeople. I am an employer in the cotton trade myself, and I have a very great amount of sympathy with the operatives. I think that factory wages would be the last thing I should touch; they work hard and their comforts are not many or excessive.

8080. And, besides that, I suppose the operatives resist, so far as they can, any attempt to lower their money wages?—I may say that there is such tenacity and such an amount of the fighting element amongst the working men with regard to any further reductions that they will fight, and fight hard, sooner than stand any more reductions. It would be a very disastrous process. You think you are to get out of this difficulty by adjustment. Any adjustment which would be attended with any further loss of wages and employment and pressure on the population will be fought very tenaciously. Now I am not an alarmist at all; I am rather a sanguine man. I believe that Lancashire can beat the world on fair lines, and no matter for charges on import or export, no matter for the ¾d. or 1d. a lb., we can beat the world in cotton goods with equal monetary conditions. We have beaten America. For 60 years America has been engaged in the cotton trade, and she cannot take a market from us. Why is it that India, with inferior labour to America, can come and take a big market from us? It is nothing but the exchange.

8081. Then your evidence is that when a fall in price takes place wages do not automatically and without any trouble adjust themselves to that fall in price?—Certainly; and I have shown that commodities do not adjust themselves to the fall. A wholesale fall of price never means more than half that fall to the retail consumer. When the retail customer comes into the shop if you had a fall of 30 per cent. all round wholesale, you have the expense of distribution the same practically for a long time, so that it takes a very long time to adjust everything, and there are many things

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that are never so adjusted. For instance, take the rent of my mill. I am paying precisely the same money as I paid ten years ago, 500*l.* a year for my mill. I am just in the same position in regard to my railway carriage. My railway carriage comes to about 400*l.* a year. How can you adjust railway charges considering the enormous cost of construction?

8082. Then you would say that, as all the charges do not immediately adjust themselves to any change in the relative value of the two standards, it is very desirable as far as may be possible to preserve fixity of value between the gold and silver standards?—Stability of value in the standard is of the highest importance to traders. Prices adjust themselves to stability, but they never adjust themselves to unstable standards. A man gives a certain amount of labour or a commodity and he wants it put into a coin with which he will get a similar thing back or an equivalent for the supply of his needs, but you never can have that throughout the world with two fluctuating standards.

8083. (*Chairman.*) One question I want to ask you as to the statistics you have put in, the number of the unemployed. Is that the number at a particular date, or is it the total number who have received assistance during the year or some definite period?—It is the average number during the year on their books.

8084. (*Mr. Chaplin.*) You have given us some further remarkable information as to the rapid advance that has been made in the cotton trade in India. I understand that you think that if that continues to develop it would place the cotton trade in this country in a very serious position?—Yes.

8085. And that you attribute to the advantages which they derive from the rate of exchange?—That is so.

8086. In the remedies you suggest I understand that you have two main objects in view; one is to get rid of the difficulties of exchange and the other is to establish stability in the standard for the future?—Yes.

8087. And this you say can be done in your opinion by the adoption of a double instead of a single standard?—It has been done, and we as distinctly lived under bimetalism in this country, without knowing it, as our forefathers lived under the law of gravitation without knowing anything about it up to the time of Newton. It is simply this: there was a monetary convention that did the work though we were practically outside of it. Now I have taken the price of silver in London for 70 years, and it has not varied a half per cent. taking the averages year by year, and the price has averaged within a half to 1 per cent. of the French ratio of 15½ to 1, showing plainly that France almost alone was capable of maintaining the bimetallic law for such a period when the production of silver was twice as large in proportion to gold as it is at the present time.

8088. And I gather from what you have said that you are of opinion that the agricultural industry of this country is suffering in a similar way to the cotton industry in Lancashire, and from precisely the same cause?—Precisely.

8089. You were asked by the Chairman what you would like to see the rate raised to. I suppose you would be satisfied if you could revert to the position prior to 1874?—My own opinion is that the natural rate, looking to all the circumstances, would be to go back to the old standard, because there are many very oppressive charges arising from the change then made. For instance, a man has mortgage money borrowed on property, and there is a large class in Lancashire of small men, the best portion of the working classes, who hold property in this way, but they have been almost cleaned out wherever they have built a bit of property for themselves, and borrowed part of the money.

8090. The ratio at that time, before 1874, was 15½ to 1?—15½ to 1 and in America 16 to 1.

8091. And it is 15½ to 1 that you would prefer if you had your choice?—Personally, as far as my

investigation is concerned, I think, in justice to the country, and to every pre-existing contract that that ratio should be adopted.

8092. (*Chairman.*) But what do you say as to contracts entered into since this change took place?—As contracts they would undoubtedly gain. The people that had borrowed or bought since that time, especially after the fall became considerable, would be gainers, but this is small compared with all continuing charges existing from and after 1873 or 1874.

8093. Therefore, you must interfere with one or other: you would interfere if you put it back to the former state of things with all contracts made since?—I think it is very much better to give restitution to those who have suffered and even sacrifice a little advantage to those who have traded in the meantime. You must bear in mind that the class of people who had borrowed and entered into mortgages or loans or fixed charges, such as ground rents, dead rents of collieries, royalties, &c., have been very large sufferers, and that they have paid annual charges based on prices before the standard was touched.

8094. But if they have both acted under economical conditions, with which legislation has had nothing to do in this country, would it not be rather a strong thing to legislate to the disadvantage of one class in order that you might restore, as you say, something to another. It is a different set of people who get the benefit to those who suffered the disadvantage?—For instance, supposing we take it in this way, that there was a very large number of rents, fixed through rent courts, say, and they are being revised, there is no doubt that to go back to the 15½ to 1 would be a very hard thing on the landowners, but I do not see how any very great improvement in regard to our monetary relations with the rest of the world can take place if we are never to enter upon a policy of fixing the rate through fear of dealing unequally with somebody.

8095. Yes, but might not this answer be given (I am not putting it as expressing an opinion), that the advantage or the disadvantage which has arisen has arisen from economical conditions in the relations of gold and silver independent of any legislation, and that it is a different thing fixing a ratio which is to prevail for the future and fixing a ratio at such a rate as by that legislation actually to affect the contracts that people have entered into?—Well, as I stated before, it is not exactly my province to fix a ratio. Knowing that no such ratio can be fixed without very important negotiations with the United States, France, Germany, and this country, and I do not suppose any attempt would be made to fix a ratio without the common concurrence of the great nations of the world, so that I fancy they would find a rate very much better than I could suggest. My own leanings are decidedly in favour of the old rate, because I believe restoration to the class of sufferers through that period is a much more moral act so far as we are concerned than any little disadvantage that may occur through the change.

8096. (*Mr. Chaplin.*) In reference to what the Chairman has just said, your reply in fact would be this: I understand that you would cause no greater interference with contracts now by the establishment of a double standard of 15½ to 1 than was caused by the demonetisation of silver in 1874?—Precisely, and the only difference is this, that whereas the cause of all this trouble was the demonetization of silver by Germany and the other States and by the dissolution of the Latin Union which had maintained the rate, in which we had no part; now we are the only people who are standing in the way of repairing these errors. Those countries begin to see they have made a great mistake in their monetary changes.

8097. Do not you think it does make a little difference that the one arises from something in which neither creditor nor debtor had a voice, and the other arises from the direct act in which both debtor and creditor had a voice, but the one has the voice which prevails?—Well, although I say that I appear here as representing the working-class element, I have stated

that I have been an employer for a long period, and I venture to say that if I had drawn a picture of the ruin that has come over the capitalist class it would have been very much blacker by far than that I drew of the working classes; the ruin through fixed charges and the changed valuations has been something awful to the capitalist class who are engaged in industrial and mercantile operations. Now I do think that if you determine on a policy you will get quite enough of evidence from the capitalist and other classes to direct your views as to what point ought to be determined upon. But I am certain that you need not fear a rapid change, because if we went back to the old prices they would go back very gradually. For instance, supposing this Commission reported favourably upon having a rated money, that would send silver up a penny or twopence an ounce immediately. Well before our Government took action, the determining on having a conference would send up silver another step. In fact the natural steps that would have to be taken before we could get to a common agreement with the other countries named, would bring back silver before you rated it.

8098. And to what ratio would it bring it back?—Very nearly to the old ratio.

8099. At the same time you hold that as a matter to be settled by a conference of the nations?—Yes.

8100. You are then distinctly of opinion that the adoption of a double standard or this ratio, although it might injure one or two individual trades in India, would be a great benefit to India as a whole?—Most distinctly an enormous benefit.

8101. It was suggested to you just now that the process of adjustment, say, would cause a real injury and a real difficulty, and that when that was over the difficulties would subside. But supposing that was so there is no guarantee, is there, whatever against a further fall in silver at some future time?—Certainly not, that is the difficulty, it is a never ending process.

8102. In which case the whole process of adjustment would have to be gone over again?—If you fix a rate the process of adjustment would determine the question, but I have to submit that there cannot be an adjustment with fluctuating standards. You never know where they will fluctuate to. Silver might be much depreciated at one time and gold might be much depreciated at another, through either the output of the mines or further action of Governments, and you have the whole commerce of the world playing at see-saw.

8103. (*Sir T. Farrer.*) I understand how the change your propose will operate to the benefit of the Indian trade, possibly also to increase the price of wheat and so improve the position of the English agriculturist; but I do not quite understand how this alteration that you propose will benefit all the other trades?—Well, I apprehend that England is really supported by five trades. There is agriculture; there are the textile trades; there is the mining industry; there is engineering, including all mechanical industry, and the shipping industry. Now those are the five big trades that support the prosperity of this country. Anything that destroys one is a very serious matter. Now two trades are seriously interfered with—I refer to agriculture and the cotton trade—and the others are in a bad way.

8104. But with regard to agriculture you said that the Indian wheat would still keep the market against the English wheat?—I never said so. It will keep the market as against American and other foreign wheat, that is supposing wheat went up. I think it would go up 8s. or 10s. as the result of readjustment.

8105. Do you mean the American wheat would rise 8s.?—Indian wheat, American wheat, all wheat would rise 8s.

8106. But you think Indian wheat rules the market?—Undoubtedly.

8107. (*Chairman.*) Why do you say 8s.?—Because the fall has been within the last few years very much greater than the fall in silver. Well, if you take the

fall in silver and you take the rupee at 1s. 10d., and it is now down at 1s. 5d., the fall would be about 24 per cent. Supposing that Indian wheat now is selling in this market, say, at 30s. or 32s., 33 per cent. would bring it up to 41s., so that practically 8s. or 10s. would be the change supposing it went back to the full point with money. But there are other processes of cheapening; there are the improved communications, that have been one of the elements of cheapening in the supply of wheat as well as in all our other foreign trade. I expect that it might send up the price of wheat 7s. or 8s.

8108. (*Sir T. Farrer.*) Now how do you suppose it would do that? Suppose that the price of Indian wheat were raised to-morrow by your action and that the Indian wheat were kept out of the market, do you suppose that other wheat would all rise to that extent?—Certainly.

8109. Now at this moment I am told that the wheat which rules the market, and which is at the lowest price, is Russian wheat, and that the quantity of Indian wheat coming is diminishing and the quantity of Russian wheat is increasing?—I should presume if Russian wheat is ruling the market it is because they are offering it cheaper in the market, because it is a fact that whenever you have a full supply of any article the producer who offers the cheapest, taking qualities to be equal, is the man who rules the market.

8110. Of course he is. How would restoring silver affect the price of Russian wheat?—I suppose Russia has roubles.

8111. It has paper, no silver?—Well I cannot say. As I said before, that is one point to which I have paid little or no attention, the question of paper money. I do not understand how it affects this question, nor do I think it does.

8112. And you never examined as to what have been the causes of the fall in the price of Canadian and American wheat so far as regards competition with Indian wheat?—Well, I examined them in this respect. As a manufacturer having to do with daily productions and in selling cloth I know that when the market is pretty well stocked the man who offers the cheapest article fixes the price. If the market was not stocked he might not, he would not; but with the market overstocked the man who offers the goods at the lowest price fixes the price.

8113. And a very small excess lowers the price?—I know it from experience.

8114. You mentioned a great number of trades as being in a very bad condition. It is impossible to go through them all, but I do happen to know something of one of the trades that you mentioned and that you have referred to to-day, and that is the pottery trade. I have the following statement from one of the first manufacturers in the Potteries:—“Josiah Wedgwood and Sons, Etruria, have paid 44 per cent. more wages in 1887 than they did in 1877, and have sold 57 per cent. more goods, the class of goods being more ornamental will account for the greater increased per-centage of goods sold over wages paid. I believe there is more ware made to-day in the Potteries than ever was made before, and in this belief I am confirmed by the opinion of other manufacturers. One Longton manufacturer told me that last week was the largest get-off of ware from Longton Station they had ever had. Another told me that though certain works were on short time the aggregate amount produced was largely in excess of what it was ten years ago, as they had so many new works since that date in operation. The manager of the Manchester and Liverpool District Bank, speaking without reference to books, thought there was no doubt that more money was paid in wages now than 10 years ago. Some works are making short time, and some branches of the business are working short while others are working full time. This will always be the case from various causes, change of fashion, of the character of trade, the introduction of machinery, &c. Thus, although we are working full time generally and are paying

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" so much more wages than we did ten years ago, certain branches, as the plate makers and earthenware potters, are only working four works a week. That is due partly to change of markets, but chiefly to the introduction of machinery enabling one man, or in some cases one woman, to do the work of three formerly. Three fourths of the wages paid are piece-work. In 1873 there was a general rise of 5 per cent. all round amongst potters' prices, other branches participating in the rise in greater or less degree, and prices reached the highest they have ever attained. In 1878 or 1879 Lord Hather-ton as arbitrator awarded a reduction of prices all round of 1d. in the shilling. This reduction has not been questioned since by the men, and obtains still though the penny is no longer deducted from the weekly wage bill, but is allowed for in the revised list of piece-work prices. So far the witness's statement is true. But the purchasing power of the reduced wages is greater now than it was in 1873. Then the 4-lb. loaf was 7½d., now it is 4d. Our foreman of potters says the men were much more discontented when the rate of piece-work prices was higher than they are to-day. Life was harder for them. They are better fed, better clothed, and better housed to-day than they were in 1873. In fact, he says 20s. to-day goes farther than 27s. did then. He says there is no excess of labour over employment now. He has only had one application for a potter's place in the last three months, and in bad times he is pestered with applications. The present state of things is much better in this regard than is usual from the men's point of view. The relieving officer for Hanley, a town of 50,000 inhabitants, tells me there is no distress in his district; indeed, the working man is, he thinks, better off than he has been for some time. The Committee of the Hanley Charity Organisation Society concur in this opinion, The Hanley Sick Visiting Society reports that they have unusually little sickness to attend to. The secretary to a large sick club in Newcastle having 500 members reports that there is no difficulty in getting their payments from the members regularly. The fines for non-payment were 96d. for the five years 1876-80, and 97d. for the five years 1881-85, since which date their code of fines has been altered and is not therefore a fair test. The following are the investments with, and drafts on, the Commissioners of the National Debt of the Pottery Central Saving Bank:—

	Investment.	Drafts.
1878	—	5,000
1879	—	5,250
1880	—	1,500
1881	—	2,500
1882	—	1,800
1882	1,700	1,700
1883	700	—
1884	500	1,000
1885	500	3,000
1886	—	2,200
1887	500	1,100

" This is a working-man's saving bank mainly, and though the sums are not large they show that the savings are larger of late years than they were 8 to 10 years ago. The Post Office Saving Bank is also doing a large business." Now that is the account I get of the Potteries, which you stated was in a very bad state. I only say that there is another side to the question?—Quite so, of course different sources of information may differ a little, it depends entirely upon the width of ground you cover. Now take the last statement, the savings banks are increasing their annual investment. It is easy to understand why the men put their money into them. It is simply because other methods of investing the money of the working—classes have become less profitable.

8115. But that is not so in the Potteries. I happen to know that the working people there invest largely in their own houses?—In nothing has the suffering been more serious than to the property of small holders. Several of the greatest building societies in this country are in liquidation. In Manchester alone the falling off on investments in such societies is over two millions per annum.

8116. I give you these facts which are given to me by an extremely good authority in the Potteries, and which are certainly not consistent with yours?—I desire to say that my principal remark about the Potteries is based on the factory inspector's report on the district. He stated distinctly in his report last year that there was deficient employment in the Potteries.

8117. I am speaking of the pottery trade, not the iron trade?—I also gave a general sample of the Potteries from a report specially prepared for me. I can only say that whatever may be the facts I have given or the conclusions that can be formed upon my evidence it has been honestly prepared, not on purpose in the slightest degree to give anything but what is fair and right.

8118. Certainly, I only mean that there are two sides to a question?—That is so.

8119. With regard to a point of argument, not of fact, you said, I think, that two fifths of the expenditure of the country was fixed, and that in respect of those items no advantage was reaped?—Yes, conventionally fixed.

8120. I should like to ask you whether persons do not benefit in respect of prices, not only by paying less but by getting more and better things for the same price?—Undoubtedly in some respects; for instance, supposing that for the same money he gets a better service, but that does not affect the man's income and spending power. He has to do a certain thing and he only has so much with which to pay for it, he must put up with the worse service rather than pay more.

8121. But supposing he pays the same price and gets better service, that is the same as if he was able to pay more?—No, it is not the same thing. Now I will take a man who has a certain sum of money to pay per week for a family of five. Well he may get a better service for a given sum of money as he might get a rather better article; but if he divides his money out, and he can only pay a certain amount for this or that, the better service is no advantage to him from a saving point of view.

8122. Yes, but if the same amount is paid and a better service is got for it he is better off?—I think not, when you consider changes in employment and wages.

8123. If you take the different items which you have mentioned, you will find that in almost all of them we get more for our money. I will not go through them in detail. But, for instance, local taxation gives better water, better police, better streets, parks, and buildings. Then you spoke of hotels and everything that was sold at publichouses. We get very much better accommodation, far better than we did when I was a young man, and probably the working man does, though he may pay the same money. Take, again, railways. I could show you by very detailed figures what an immense advantage (although the penny a mile may remain the same) the working man has got in improved quickness of service, in third-class carriages being attached to every express train, in workmen's trains, in cheap trips. The working man, although the actual rate of a penny a mile may be the same, surely gets for his penny infinitely more than he used to get?—Well, I think I could go through every one of those items and explain them precisely. If a workman has only 6d. a week to come into this city to serve his employer, so far as economy it does not matter to him whether he has a better carriage or not, the 6d. is the important point, and if he still spends that he makes no economy.

8124. I will only give you two figures; the number of third class passengers in 1873 was

455,000,000; the number of third-class passengers in 1886 was 726,000,000. Does not that show that the poorer classes have had some benefit?—Yes, but will you allow me to tell you that the natural growth of railway traffic is practically only indicated there.

8125. And all these third-class trains are far better than they used to be?—They are better served, I admit; improvement is a tendency in all these things.

8126. Then, again, as to workmen's trains, trains which actually carry the working men at a very cheap rate, some of them at about $\frac{1}{4}d.$ a mile; in 1872, there were out of London 38 workmen's trains, now there are 113, and the number of persons carried by them has more than doubled. And so I might go on?—In Lancashire the passenger traffic doubles of itself every 10 years. As matter of fact, these increases must not be put down as in particular arising from the service but from the natural growth of traffic in the country.

8127. That shows that the workmen get more facilities of communication than they did?—You see the whole of that question has to stand on this point: Given a certain amount of reduced income, can a working man effect certain economies? He may get better service, but can he effect certain economies and devote the surplus to other things?

8128. If he gets more for each $1d.$?—He does not get more, he gets the same service better rendered. I did not include in that estimate of 400,000,000 a very large item that I have thought of since, viz., the cost of recreation and amusements. They are all growing dearer and they come to a very large sum per annum.

8129. (*Mr. Fremantle.*) You said a little while ago that this country had no part in the bimetallic arrangement which was in effective operation before 1873. Is there any special reason now, do you think, why this country should join in an agreement of that sort?—The special reason is this: supposing that it be a fact that we are suffering by this dislocation of money and that the Governments of the world will not again undertake to maintain a fixed rate without England taking a share in the work. That is the special cause of delay in fixing up again rated money.

8130. But is there any reason why the other nations of the world should not join in an agreement of that kind, as they did before, without the aid of this country?—Commerce is very much larger than when that arrangement was entered into, and some people are very much frightened about the production of silver. I find the production of both metals in the United States is practically about $\frac{1}{10}$ part of the production of their commodities and no more. The international trade of the world is a much bigger factor than when France began the regime in 1803, and there is no reason why England should refuse to take her perfect and proper share of the work of getting international rated money. There is another very great

reason why England should be included, and it is this, that we have the greatest silver-using country in the world under our Empire, and other nations are very much afraid if they build up the rate again that we might make some change in the currency of India that would be very disadvantageous, in fact, as Germany broke down the Latin Union in 1873. I believe at the Monetary Conference in 1881 they would have agreed if England, being out of the arrangement, would have given a pledge that for 20 years she would not interfere with the standard of India. I believe the nations would have rated money without England.

8131. But are you aware that at that Conference England gave the pledge that the mints of India should be open to silver coinage?—I am aware that she declined to pledge the future. It is not a matter of whether the mints of India are open to-day or to-morrow, it is a question of 20 years. They, the nations, must have no great flood of silver thrown on the market through another demonetization.

8132. I think I am right in saying that no question was raised about the change of standard in India at that time, nor was any apprehension expressed that such a change would be made?—The impression remains on my mind that the Powers were prepared to accept the responsibility of rating silver, providing that this country would give an absolute guarantee not to touch the coinage of India for 20 years. However, that is a matter of small importance now.

8133. You would agree that without England, before 1873, the bimetallic arrangement was possible?—It not only was possible but absolutely carried out, and carried out during a period when twice the production of silver in relation to gold took place than is taking place now. Silver has fallen through restricting its use and not through the production of the mines.

8134. (*Mr. Montagu.*) Would there not also be a disadvantage to this country if other nations were bimetallic and we remained out, with regard to our trade with silver-using countries, because we should have to get the silver from those countries with expense or sell it again with loss, and so we should be handicapped in our trade with silver-using countries?—Quite so.

8135. That was the case, was it not, before 1873?—If we wanted silver for India we had to go abroad for it and pay the profit, and the reverse would cause a loss if we received silver, and had to sell it abroad?—Well, I am not quite acquainted with that question, but I would simply say that the greatest danger that could possibly happen to this country in regard to its trade would be if the United States were to say, "We will go on silver and we will clear England out of the whole of her Eastern trade, and, if she did, you could not help yourselves." You would have to rush to a silver standard.

*Mr.
J. C. Fielden.*
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[14 Nov. 1887.]

The witness withdrew.

Adjourned till Friday.

THIRTY-SIXTH DAY.

Friday, 18th November 1887.

PRESENT :

THE RIGHT HON. LORD HERSCHELL, the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.
MR. HENRY CHAPLIN, M.P.
SIR T. H. FARRER, Bart.

SIR JOHN LUBBOCK, Bart., M.P.
MR. S. MONTAGU, M.P., and

MR. GEO. H. MURRAY, *Secretary*.

Mr. T. COMBER re-called and examined.

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8136. (*Mr. Chaplin.*) I think last time you were here, you said you regarded the question in two lights; first, as to whether the fixed ratio was possible, and secondly, if it was, whether it was desirable in the interests of India and England, that it should be re-established?—Yes, I did say so. I may mention that I understood that I came here to-day to answer certain questions about wheat; I did not understand that I was to go over the whole subject. There may be some questions that I have not materials with me for answering. I will answer them if I happen to be able to.

8137. Well, I gather that you gave a general opinion that it would be impossible to fix the ratio permanently?—That is my opinion.

8138. But that opinion was somewhat qualified, I think, by various answers that you gave. In Question 6335, you laid down that it would be “impossible to permanently maintain a double standard, even when established over a certain area, by international agreement.” But you do not deny that the fixed ratio has had some effect in keeping the standard steady?—Not at all; certainly it had some effect.

8139. And you limit your observation to this: that you do not think, permanently, a fixed ratio could be maintained?—Yes, on the ground which I tried to explain.

8140. Well, then you spoke of India, and I think you said that the disadvantages to India, arising under the present system, were more than counter-balanced by the advantages to India as a whole?—Yes.

8141. Then I suppose you would disagree altogether with the evidence given by Sir Evelyn Baring upon this question. At Question 7109 of his evidence, he was asked this: “I think you admitted that the fall in silver has, to some extent, been advantageous to producers in India?—Yes, I think it has. It has sent home more produce than otherwise would have been sent.” Then the next question that he was asked is this: “But it does not in any way compensate for the general mischief?—I think certainly not.”—I disagree with him entirely; I think it more than compensates.

8142. And that would not modify your opinion in any way?—I arrived at my opinion quite independently.

8143. You consider that India gets the advantages which you spoke of. Do you think that the rate of exchange has a tendency to develop trade?—The answers to Questions 6375 and the following ones, give my views as fully as I could venture to give them. “I think it is beneficial to a certain extent in India, because India is entirely differently situated” and again, “India is a producing country; she produces and exports sufficient to pay for her imports, for what has been termed the Government tribute, by which I mean the liabilities of the Indian Govern-

ment in London, and to receive a balance in “treasure, largely composed of silver from her debtors, namely, the recipients of her exported “produce.” Speaking broadly that her producers, in competition with the producers of other countries are at a considerable advantage.

8144. And you do not think it is counter-balanced at all by the fact that she has to pay a very large interest on her gold debt to England?—I think when things finally adjust themselves, the increase of the revenue of India, from the increased assessments for the land tax, will pay the increased charge for interest.

8145. But at the present time?—At the present time I think that the advantage to the cultivator compensates for any disadvantage.

8146. In respect of the large debt that she has to pay to England?—That is only one item in her balance of trade, which is more than counterbalanced by other items; so that the balance of trade is in her favour.

8147. You were asked some questions by the Chairman, as to the alleged depression of trade and agriculture in this country, owing to the suggested appreciation of gold, and you said that, as regards trade, you thought it was much more largely due to other circumstances; and then you took the cost of wheat, and you were kind enough to give us some figures compiled by a neighbour of yours; the general result of which was to show that the fall in the price of wheat was very nearly accounted for by the diminished cost of transport?—That it was largely accounted for by that.

8148. And you suggested, I think, that the years taken were not fairly representative years?—Yes, I questioned the taking of the year 1875.

8149. Do you know why 1875 was taken?—I could not tell you then, and I cannot tell you now, except that my friend Mr. Nixon did take those years; but I want to put before you, if you please, a statement, which I have prepared myself for every year from 1873 up to the first half of 1887, and that shows it year by year (*see Appendix*). It has been made up by myself, and I will be responsible for it. If you will allow me to explain, the first column shows the average price of English wheat. The next columns show the cost of carriage of Indian wheat, the inland carriage, the sea carriage, and the two together for each year; the next columns show the same from America; the last columns show the reduction from the year 1873; the reduction in the price of wheat, the reduction in the transport from India, and the reduction in the transport from America. I average the four years 1874-7; the five years 1878-82; and the four and half years ending June 1887.

8150. (*Sir T. Farrer.*) Could you give us the general result in figures?—The average price of

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wheat in 1873 was 58s. 8d. It was 33s. 11d., in the first half of 1887. Of course there has been a great change since then. The Californian ring has broken, and the price is now a good deal lower; but I take the average price during the first six months of the year.

8151. (*Mr. Chaplin.*) What is the present price?—The present price is about 30s.

8152. And has been about that for some time?—Yes.

8153. It has been considerably lower than that during the first part of the six months?—A little lower. I made up this table immediately after I was here before, and I took the first half of the year.

8154. I suppose 30s. would be a fair average to take as the probable price of wheat in the last six months in 1887?—I think so.

8155. I understood that there has been a fall from 1873 to 1887; to what extent?—The first half of the year 1887 the average price was 33s. 11d., that shows a fall of 24s. 9d. The fall in the cost of transport from India was 13s. 3d., and in the transport from America, 9s. 3d. I should like to explain that in one item, the inland carriage from Jubbulpore to Bombay, the reduction is partly due to the fall in silver, to the extent of 1s. 7d.

8156. You say that the fall in the transport from India to England is 13s. 3d.; how do you get the 13s. 3d. in the different items. How much is owing to land transport, and how much to sea?—The land carriage has fallen from 9s. 8d. to 4s. 11d.; that is a difference of 4s. 9d. The sea carriage from 13s. to 4s. 6d., a fall of 8s. 6d.

8157. Where is that from?—From Jubbulpore. It is the only place where I could get a return from the railway companies so far back as 1873.

8158. You have got returns as to Cawnpore at a later date than that, I suppose?—Yes, but those are not regular; I could not get them from 1873 from any place but Jubbulpore.

8159. (*Mr. Barbour.*) Have you got a statement of the amount of wheat exported in 1873; I think the trade was very small at that time?—Yes, the export was only 394,000 cwts. Of course a good deal of wheat came down to Bombay from Jubbulpore for local consumption, apart altogether from export.

8160. (*Mr. Chaplin.*) I do not think it is necessary to go through every year, but take 1877, could you give us that?—Well, I could give you the average of four years from 1874 to 1877; the average of five years from 1878 to 1882; and the average of four and half years from 1883 to the middle of 1887.

8161. You could not give us 10 years ago?—Yes, in 1877 the price of wheat was 56s. 9d., as against 58s. 8d. in 1873, showing a reduction of 1s. 11d. per quarter. The fall in transport from India was 6s. 11d. at that time.

8162. Now what I want to point out to you is, that from 1873 to 1877 the price of wheat has varied. It has sometimes fallen, and sometimes risen, but since 1881 there has been a steady and continuous fall to the present time. Now could you tell us what the price of wheat was in 1881, and what the fall in carriage between 1881 and 1887 was?—Yes. The price of wheat in 1881 was 45s. 4d., and in the first half of this year it was 33s. 11d.—that is a fall of 11s. 5d., and the fall in carriage was 6s. 1d. In 1881 freights were rather high. The average ocean carriage was then 9s. 2d., whereas two years before, it was as low as 6s. 3d.

8163. (*Chairman.*) Can you give a comparison of the price of silver in the two years 1881 and 1887?—I can give you the rate of exchange, if that will do. In 1881 the average exchange was 1s. 7½d., and in the first half of 1887 it was 1s. 5d.

8164. (*Mr. Chaplin.*) Well now, in all these calculations you have allowed for the price of wheat being 33s. 11d. for the first half of 1887?—Yes.

8165. On the assumption that the price of wheat for the second half of 1887 is only 30s. which is the average price quoted now, that would make the fall

from 1883 to the present time 11s. 8d.; whereas the fall in carriage has been only 2s. 5d. If that is so, I presume you will admit that that entirely disposes of the argument that the fall in the price of wheat has been due to the fall in the cost of carriage?—There are fluctuations in different years, but the argument that I venture to put before you, I think, holds good on the average.

8166. (*Sir T. Farrer.*) Has there been any great fall of exchange between 1886 and 1887 and the present time?—I cannot give it you for the year 1887, because the year has not closed, but in the first half of the year 1887 it was 1s. 5d. as against 1s. 5½d. last year.

8167. (*Mr. Chaplin.*) But, however, we are in the middle of the second half of 1887, and, taking the price of wheat at 30s. for the second half of 1887, and taking also the fall in the cost of transport that you have given us, we arrive at these figures, that the fall in the price of wheat has been 11s. 8d., and the decreased cost of transit has been 2s. 5d.?—If you take those two particular years, that is so. I do not agree to 11s. 8d., unless you take only the second half of the year.

8168. Since 1883 there was a heavy and continuous fall in the price of wheat?—It would depend altogether upon how you regard it. I do not think the average of this year will be lower than the average of last year, because the average of the first half of the year is 33s. 11d.—34s. in round numbers. Accepting your supposition that in the second half it will be 30s., the average for the year will be 32s., or 1s. higher than it was in 1886. I do not want to assent to your suggestion that the fall has been continuous since 1883, because in the first half of 1887, there was a considerable rise, and that must affect the average for the whole year.

8169. That, as a matter of course, can only be decided when we get the average at the close of the year, but my statement was that from 1883 to the present time there had been a continuous fall?—Not continuous so far as the beginning of this year was concerned.

8170. But, as far as the present time is concerned, November is the last month for which we have returns; for three or four months the fall has been continuous?—I do not want you to put the words "continuous decline" into my mouth.

8171. (*Sir T. Farrer.*) Has there been any great fall in exchange during the present year, comparing the exchange with prices?—There has been no very great fluctuation.

8172. (*Mr. Chaplin.*) Admitting, for the sake of argument, that your contention is right, there has been still a very great fall from 1883 to 1887?—A fall of 8s. 7d.

8173. And that fall, amounting to 11s. 7d. according to my calculation, and amounting to 8s. 7d. according to your calculation, is not nearly accounted for by the diminished cost of transport, which was only 2s. 5d.?—Partly accounted for. I have only mentioned the cost of transport as one item in the cause of the fall.

8174. Well, in your evidence the statement is this: "He has calculated the cost of carriage from Cawnpore to Liverpool, making a total of 9s. 3d.; the reduced cost of transit was very nearly as much as the reduced price for wheat?"—Yes, that is for those particular years, but, I think, if you would read several other answers which I gave, I pointed out that the cost on transport was only one of the various causes which I thought had produced the fall in prices; and that I did not deny that the fall in silver was also a contributory cause—I think so still.

8175. That was what I wanted to arrive at, that the fall in the price of wheat is not nearly accounted for by the diminished cost of transport?—I should prefer to rely on the table I lay before you which gives the whole series of years covered by the fall in silver.

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8176. (*Sir T. Farrer.*) I suppose the price of wheat in each particular country depends more than anything else upon the seasons in that country, and especially upon the question whether there is an abundance or scarcity there for the time?—That is the main factor.

8177. (*Chairman.*) But does it depend so much now on the seasons and those conditions in a particular country with the rapid and easy acquiring of information internationally?—Not so much as it formerly did.

8178. (*Sir T. Farrer.*) But in a particular country the supply will depend on the seasons, will it not?—The supply will depend mainly on the seasons.

8179. Have you heard that at this particular time, and during the latter period of this year, the lowest wheat in the market has been Russian wheat?—I cannot speak as to that.

8180. Do the items you have given include all the reductions in the cost of Indian production? There have been some witnesses who have told us that the price of bagging has been reduced?—The table shows the cost of transport only, railway carriage from Jubbulpore to Bombay, and steamer freight from Bombay to Liverpool. It does not include any reduction in the cost of bagging, or of handling, or the elimination of middle profits at all.

8181. (*Mr. Chaplin.*) You expressed the opinion, I think, when you were here before, that the condition of the wage-earning classes was much better now than it was 14 or 15 years ago?—I think so; yes.

8182. And do you refer to the wages of artisans or agricultural labourers, or both?—I referred principally to cotton operatives, with whose position I am better acquainted.

8183. You speak from experience of these?—I have not much personal experience with operatives, but I speak from my general knowledge of the cotton trade.

8184. You would say that the condition of those classes is better than it was 14 or 15 years ago?—That is my opinion.

8185. In what respect is it better?—I think the rate of wage has been reduced somewhat; but that has been partly compensated for by the increased out-turn of machinery; and, therefore, the weekly earnings have not decreased in proportion to the rate of wage; whilst the buying power of the weekly earnings, considering the fall in prices in the necessities of life, is greater than it was at the former period.

8186. You think then, in so many years, that their real wages have increased?—Yes.

8187. You would entirely dispute the evidence which was given before us last week, by a gentleman, who spoke, apparently, from an intimate knowledge of the working classes, and estimated the fall in their real wages at something like $7\frac{1}{2}$ or 10 per cent.?—It is so very difficult to say whether he was speaking of the rate of wage, or of the weekly earnings, because they are essentially different. For instance, supposing that the wage of a weaver has been reduced, we will say, 10 per cent., and that through improvements in machinery, one hand that used to mind, as they call it, two looms, can now mind three looms; it is very evident that her weekly earnings would be very largely increased in spite of the reduction in the rate of wage. I do not put that as an actual instance, but as showing how the weekly earnings depend upon out-turn.

8188. (*Mr. Barbour.*) I think I can give you Mr. Fielden's figures. He said the rate of payment for work done was reduced 15 per cent.; that owing to a worker being able to turn out more work, one-half of that loss was recovered, so that there is a net loss in the money wage of $7\frac{1}{2}$ per cent.?—I should not differ much from him; I think the rate of wage has been reduced about 10 per cent., and the weekly earnings about 5 per cent., and I believe that 5 per cent. less money now buys more than the larger sum did so many years ago.

8189. He also said that there had been a loss of wages owing to strikes that had taken place before the rate of wages could be reduced, and that there was

a larger number of men out of employment?—I cannot speak as to the number of men out of employment at present, I should doubt its being large, but I have no definite information.

8190. (*Mr. Chaplin.*) Then you still adhere to that opinion, that the condition of the wage-earning classes, on the whole, is better than it was?—Yes.

8191. But, at the same time, you say that you speak from no personal knowledge or any very great experience of their condition?—Not directly.

8192. And the evidence of the gentleman to whom I have referred, who speaks from direct personal and intimate knowledge, would not shake your opinion at all?—No, I think I could produce evidence from people, who are more intimately brought into contact with the operatives than I am myself, which would go quite the other way.

8193. I think you stated in the course of your examination, that one effect of the adoption of the bi-metallic theory would be to increase prices generally?—In gold countries.

8194. You said largely in time?—I think largely in time as the production of the mines comes up into the currency. I want you to bring in that condition.

8195. And, at all events, you think that the general effect of the adoption of the bi-metallic system, at the rate of $15\frac{1}{2}$ to 1, would be to increase prices at once to some extent, and largely in the future, probably?—Yes.

8196. Do you consider the increased price of commodities generally would be an evil or not?—To the country generally, I think it would be, if anything, a disadvantage.

8197. You do not hold any strong opinion about it?—It is a matter of opinion, and not of fact, although I do hold that opinion quite strongly in my own mind, I do not wish to express it in a dogmatic manner.

8198. You are aware that in the report of Lord Idlesleigh's Commission which inquired into the Depression of Trade, among the causes which had produced this prolonged depression, the fall of prices was given a very prominent place?—I have explained, I think, in my previous evidence, that the fall in prices, while it is taking place, produces loss to traders.

8199. Then so long as this fall in prices continues, you admit that it is a general disadvantage?—It produces loss to the trading community.

8200. I am speaking of the interests of the country as a whole. I want to arrive at your opinion upon that subject?—Well, I have expressed it as well as I can in my examination-in-chief, which is principally this, that the lower prices fall, the more produce this country, as a whole, draws from its debtors; and, therefore, although it may be a loss to one class of the population, and a gain to another, on the whole, taking the nation all round, the balance is of advantage to this country.

8201. Although one of the results in the fall in prices is to create a general depression of industry throughout the country?—No, excuse me, you are putting words into my mouth.

8202. I am asking if you admit that?—No, I do not admit that.

8203. Then you differ from the report of Lord Idlesleigh's Commission?—I should like to see how that was expressed in the report of the Commission.

8204. Well, I will read you one section from the report, as I am anxious to have your opinion upon it. Section 72 says as follows: "We expressed, in our Third Report, the opinion that this fall in prices, so far as it has been caused by an appreciation of the standard of value, was a matter deserving of the most serious independent inquiry, and we do not therefore think it necessary to investigate at length the causes which have brought it about." I suppose this Commission was appointed to inquire into the consequence of that. "But we desire to give it a leading place in the enumeration of the influences which have tended to produce the present depression." Well, now it seems to me, therefore,

if that report is to be taken as expressing a reliable opinion, that a fall in prices, such as it refers to, must be a disadvantage to the country at large, and that is precisely the point upon which I wanted to have your view?—After hearing that, I adhere to my previous opinion that low prices once established, are a distinct advantage to this country.

8205. Do you agree with the statement in the report that I have just read?—It depends upon the amount of the fall; I should not like to agree to it generally.

8206. You would not like to admit that the continuous fall in prices referred to has been a leading cause of depression?—No. Even while prices were falling, although the loss to the trading community may have been large, and may have contributed to the depression which existed, I think that was counterbalanced by the advantage to the working classes of the lower prices.

8207. Assuming that your opinion is right, that the working classes, on the whole, have benefited rather than the reverse?—I think so.

8208. But if it could be shown as a matter of fact, as to the condition of the working classes, that your opinion was wrong, would that alter your view as to the advantage of the fall in prices?—Of course if my facts were wrong, my opinion would change.

8209. Then if it could be shown you, or if it could be shown satisfactorily, that the condition of the working classes, instead of being benefited, has been injured by the present state of things, your opinion would change?—My opinion on that point would change.

8210. (*Chairman.*) Well, but do I understand you to mean, that if you found that there had been some suffering, or inconvenience, or loss to the working classes, that that would lead you to the conclusion that bi-metallism was a remedy which would remove it?—Not at all. This is a question of fall in prices entirely, and a fall in prices is produced by a great many other things besides mono-metallism.

8211-12. (*Sir T. Farrer.*) Supposing a fall in prices were a bad thing, and was admitted to be a bad thing, you would not think it right to try and counteract that by any violent remedies such as a change in the standard. Any legislative remedy, I should rather say, than a violent remedy?—The effect on the working classes would be only one consideration out of many, that I think should be given to the question.

8213. With respect to this question of wages, I think you said you thought that the fall in the value of silver had given some stimulus to production in India, as compared to production in England?—Yes, as regards wheat.

8214. And probably as regards cotton, but we will put that out of the question for the present. But as regards wheat, I think you said also, that that was very much because wages and fixed charges did not adjust themselves at once to prices?—And rents.

8215. Rents more particularly?—Owing to the assessment of the land tax in India.

8216. But wages do not adjust themselves so readily as prices?—No.

8217. If then, wages have fallen, as is stated in England, the adjustment has probably taken place?—Partly; I do not think it has completely.

8218. And to whatever extent it has taken place, then to that extent the stimulus given to the Indian competition is removed, and the English producer is placed so far *pro tanto* on the same footing with the Indian producer as he was before?—To the extent that the wages he pays have been reduced.

8219. In fact, the adjustment then to that extent has taken place which might have been expected?—Yes; but it is so far only a partial adjustment.

8220. Well now, going from that question, the last witness we had gave us very elaborate figures to prove that the English cotton spinner and the English weaver were much injured by Bombay competition, and that that was due almost entirely, if not entirely, to the fall in the price of silver. I think you have something to say on that point?—I quite dis-

agree with the opinion that the large development of the cotton industry in India is due entirely, or even chiefly to the fall in silver. I desire to say that on the contrary, the Indian mills derive only a trifling and temporary benefit from the changed relations between gold and silver, and that their remarkable development of late years is due chiefly to other and natural advantages which the Indian spinner enjoys over his Lancashire competitor in the production, not of all kinds of yarn, but of those descriptions which can be made from Surat cotton, that is Indian cotton. Before entering into details, I may state broadly that these advantages arise principally from the Indian spinners' proximity to the place where (1) the cotton he uses is grown, and (2) the yarn he spins is consumed. To estimate rightly the conditions under which the Indian cotton mills work and the influences which bear upon them, they should properly be compared, not with the English mills, but with other mills which enjoy similar advantages of position, yet are in no way affected by any change in the value of silver. Such mills are to be found in the Southern of the United States; for they are in, or close to the American cotton field, and they produce, as the Indian mills chiefly do, for the neighbouring population. The following comparisons show that although the recent development of the Indian mills has been very great when compared with that of English mills, it has been by no means phenomenal when compared with that of the mills in the Southern States. First as regards machinery:—

SOUTHERN COTTON MILLS.

	Spindles.	Looms.
1886-7 - - -	1,213,346	27,963
1879-80 - - -	559,320	12,329
Increase - - -	654,026	15,634
Increase per cent. -	117	127

INDIAN COTTON MILLS.

	Spindles.	Looms.
1886-7 - - -	2,421,290	18,536
1879-80 - - -	1,461,590	13,502
Increase - - -	959,700	5,034
Increase per cent. -	65 $\frac{2}{3}$	37 $\frac{1}{3}$

Next as regards consumption:—

	*Cotton delivered to Mills in			
	1886-7.	1880-1.	Increase.	Per cent.
Southern States - - -	398	205	193	94
India - - -	726	379	347	91
Northern States - - -	1,727	1,710	17	1

* In thousands of bales.

It may be objected to these comparisons that the development of the cotton industry in the Southern States of America is due rather to their working under a system of protection, and that, in fact, the advantage thus conferred on the Southern mills takes the place of that conferred on the Indian mills by the fall of silver. But a comparison between the cotton delivered to the mills in the Southern States, and that delivered to those in the Northern, shows that such is not the case. As the Northern mills enjoy equally with the Southern the advantage of protective duties, and have increased during the six years to so small an extent, it is clear that the development of the Southern mills is not due to protection, but to the advantage which they possess in common with the Indian mills, viz., proximity to the areas of production of raw and consumption of manufactured cotton.

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8221. (*Mr. Chaplin.*) What is the amount of the protective duty?—It varies a great deal with different things, but it is quite prohibitive.

8222. (*Mr. Montagu.*) Would not cheaper labour in the south than in the north affect the mills?—I do not think the labour is cheaper in the south.

8223. Do you know that they employ the free negroes at cheaper rates than the north can employ white labourers?—I know that wages in the Northern States have fallen very much, and I think that taking into consideration the quality of the work, the Southern States have certainly not the best of it. It is in the production of low counts of yarn, not of finer yarns or cloth that the Indian mills have been so successful of late years; and the cost of production of yarn is chiefly made up of items which can be grouped under the following heads.

8224. (*Sir T. Farrer.*) This coarse yarn is made from Indian cotton, is it?—In Bombay it is made from Indian cotton; in Lancashire it is made from Indian cotton and low American cotton mixed.

8225. (*Chairman.*) The Surat cotton is never used except for the low manufacture is it?—No. The heads are (1) raw cotton; (2) mill and machinery; (3) labour; (4) power; (5) stores; (6) transport to the consumer. These items vary greatly in importance. To arrive at a correct estimate of the cost of producing yarn in Lancashire and Bombay respectively, and laying it down in the East, allowance must be made (a) for the relative importance of each item; and (b) for the degree of advantage enjoyed on the one side or the other. I have prepared a statement in which I have endeavoured to show these. The first item, cotton, is by far the most important, and indeed amounts to rather over two-thirds of the whole; for owing to wastage in the process of manufacture, it takes about $1\frac{1}{4}$ lbs. of cotton to produce 1 lb. of yarn. In this principal item the Indian spinner has a great advantage, as he is saved the cost of transport, that is of bringing cotton from Bombay and laying it down in Oldham, amounting to about $14\frac{1}{2}$ per cent. on the cotton, and to produce a pound of yarn, the cotton costs the Bombay spinner only 5d. against 5·69d. to the English spinner; the extra cost to the English spinner is thus, between $\frac{3}{8}$ d. and $\frac{1}{2}$ d. per lb.

8226. I think the extra cost to the Lancashire spinner of freight and commissions, everything covered, was stated as $\frac{3}{4}$ d. Would you agree with that?—It is not quite so large as that. That covers the cost of conveying the cotton from Bombay to Oldham, including freight, cost of pressing, handling it at different places, brokerages, and commissions, which as matter of fact are paid. The second item, mill and machinery, consists really of three items (a) cost (or rent) of land; (b) cost of erecting the building; (c) cost of machinery. In the two first the Indian spinner has probably a slight advantage; in the last a considerable disadvantage; but the disadvantage is a good deal compensated for by the longer hours of working in India, 80 to 84 hours a week, against 56 hours a week in Lancashire. This materially reduces to the Indian spinner his standing expenses per pound of yarn produced.

8227. But does that necessarily diminish it unless in the 84 hours they do as much or more than would be done in 56 hours here?—Oh, but they do a good deal more. The annual out-turn of a mill of 40,000 spindles in India working 80 or 84 hours a week is very much larger than that of a similar mill in Oldham working 56 hours a week.

8228. (*Mr. Chaplin.*) How many hours do they work in India?—I can give you the particulars of the 84 hours if you like.

8229. It is not true that they work at night by petroleum light, is it?—I think they use gas when they light up. In Calcutta the hours are from daylight 6 a.m. to 8.30 p.m., or $14\frac{1}{2}$ hours for five days a week, and until 4 p.m. on Saturdays. That makes 84 hours per week; and they do not work there on Sundays. In Bombay they work on Sundays, and they work 80 hours per week.

8230. And they work the same in Bombay on Sundays?—I do not know whether the hours on Sundays are the same.

8231. (*Mr. Montagu.*) Do they not have long periods of holiday in India?—They have about two weeks in the year, corresponding to what the English spinner also has.

8232. (*Mr. Chaplin.*) These long hours, I suppose, wear out the machinery sooner?—The depreciation is found to be much the same, $7\frac{1}{2}$ per cent. per annum. The greater cost of machinery in Bombay has been of late years reduced by the fall in freights. The interest on the cost, and the depreciation of the machinery bears a much smaller proportion to the total cost of yarn, than the cost of cotton does. It is ·42 of 1d. per lb. in England, ·64 of 1d. per lb. in Bombay. In labour, conditions are about equal. In wages to the operatives, the Indian spinner has the best of it, not only in the lower rate of wage, but also in the longer hours of labour. But against this there is the greater cost of supervision, for the Indian mills are obliged to use English superintendents, who get very high wages. The hands in India are not, individually, as efficient as the English operatives; but their rate of wage is much lower, and more than compensates for their want of skill. Besides this, by longer training, the Indian hand has become more effective than formerly, and recent improvements in machinery have rendered it now so automatic, that much which formerly had to be done by hand, is now done by the machine, and this greatly diminishes the advantage conferred by the superior skill of the Lancashire "hand." In Lancashire, labour in producing 20's yarn = 1·11d. per lb., in Bombay ·99 per lb. Few mills are driven by water, and the cost of power depends almost altogether upon that of coals. It is greater to the Indian spinner; but his disadvantage in this respect is less than formerly, owing to the fall in freights. Cost of coals in England ·05 per lb. of yarn, Bombay ·16 per lb. of yarn.

8233. (*Sir T. Farrer.*) It is English coal that they use?—Yes, it is English coal.

8234. There is coal in India?—There is.

8235. (*Mr. Chaplin.*) Would it be possible to establish mills in the neighbourhood of the coal?—I do not know.

8236. (*Mr. Barbour.*) Some of the Calcutta mills are not far from the coal; do they use Indian coal?—I only know of the Bombay mills. Most stores are cheaper in England, but some, such as oils for lubricating, cost less in India. This item is again of little importance. Of the yarn produced in India, $\frac{2}{3}$ ths is consumed in the country, $\frac{1}{3}$ ths is exported chiefly to China. On the larger portion, therefore, the cost of transport which the English spinner incurs from England to an Indian port is entirely saved, viz., ·50 per lb. On the smaller portion exported, the cost of transport from Bombay to China is a great deal less than that from Manchester. Formerly this was not so much the case, for the steamship company that ran between Bombay and China, practically had a monopoly, and charged very high freights; but lately there has been competition, and several times last year, the freight from Bombay to China was as low as one rupee per ton, and the average rate at which the year's export was carried was probably five rupees. We find then that the Indian spinner has natural advantages in the most important items. Further, that in one principal item, that of cost of conveyance to China, the advantage of the Indian spinner has of late been materially increased by the reduction of freight, while the advantage of the English spinner has been diminished (a) by improvements which render machinery more automatic, (b) by the increasing skill of the Indian hands, (c) by the fall in freights which reduces the extra cost in India of machinery and coals.

8237. (*Mr. Chaplin.*) What is the advantage in the cost of freight between India and China and Manchester and China?—To carry yarn from England to China costs ·7 of 1d. per lb., and from Bombay to China ·26, including packing and other expenses;

8238. (*Chairman.*) Supposing that the rate of exchange were to rise, would not that be to some extent an advantage to the English manufacturer in his competition with India?—I am just coming to that point. In giving these details, I have endeavoured to avoid all reference to exchange, and now we come to that question. In the foregoing particulars, I have treated the various items entirely apart from the effect upon them of the change in the relative value of gold and silver. The question remains, what effect does this really exert? The fall in exchange inflicts no injury on the English spinner in his competition with the Indian mills if the loss it causes him in the realisation of his yarn in India and China is counterbalanced by a decrease to him or an increase to the Indian spinner of the various items of the cost of producing the yarn. This is, more or less, what has been the result, or will be when adjustment is complete. As regards the most important item, cotton, the cost to the English spinner is lowered by a fall in exchange exactly in the same degree as the price abroad of his yarn is lowered. As regards machinery, coals, and stores, their cost to the Bombay spinner is increased in the same degree. As regards wages, these have to a great extent, already adjusted themselves by some fall in English wages, and some advance in Indian wages; but they have probably not yet entirely done so, and the extent to which they have not done so, is the measure of the loss which the English spinner at present temporarily suffers from the fall in exchange, until the adjustment is completed. Another item hardly affected by exchange, is Government and local taxation, which has not materially altered in England or India. But wages and taxes together form a very small portion of the whole cost compared with the items in which the Indian spinner possesses natural advantages for the production of coarse yarns for eastern consumption. I find that, on the assumption that at present wages have been adjusted to the fall in exchange to only half the extent required; the natural advantage the Bombay spinner enjoys from the situation of his mill, still remains over $\frac{3}{4}d.$ per lb. of yarn produced; viz. $\cdot 71d.$ on the portion consumed in India, and $\cdot 65d.$ on that exported to China. Such an advantage is quite sufficient to prevent the trade in coarse yarns returning to Lancashire. It must be regarded as permanently lost to this country. But the manufacture of medium and finer yarns, and of cloth made from them, which constitute the great bulk of the cotton trade of Lancashire, has not been, nor is likely to be, in any way affected by Indian competition; nor is it in any degree prejudiced by the fall in exchange.

COMPARISON between Cost to English and to Bombay Spinner of producing and laying down in the East, 1 lb. of 20's Yarn.

Exchange 1s. 5d.

	Cost to		Advantage to	
	English Spinner.	Indian Spinner.	English Spinner.	Indian Spinner.
Cotton, $1\frac{1}{2}$ lbs.	$d.$ 5'69	$d.$ 5'	$d.$ —	$d.$ '69
Depreciation and interest on mill and machinery	'42	'64	'22	—
Coals	'05	'16	'11	—
Wages	1'11	'99	—	'12
Stores	'28	'46	'18	—
Sundries	'40	'25	—	'15
Cost at mill	7'95	7'50	'51	'96
Packing and carriage to Bombay	'50	—	—	'50
Delivered at Bombay	8'45	7'50	'51	1'46
		Net advantage		'95
Packing and carriage to China	'70	'26	—	'44
Delivered in China	8'65	7'76	'51	1'40
		Net advantage		1'89

8239. Is that on the question of carriage?—On the question of carriage, yes. I am taking the price of cotton in Bombay, and adding the carriage to it. This is not per pound of cotton, but per pound of yarn produced. It takes about $1\frac{1}{4}$ lbs. of cotton to produce 1 lb. of yarn. In depreciation of machinery, the English spinner has an advantage of $\cdot 22d.$; coals, $\cdot 11d.$; wages, at 1s. 5d. exchange, the Bombay spinner has an advantage of $\cdot 12$, but at 2s. exchange, on the assumption that they have only half been adjusted, the English spinner would have an advantage of about the same. In stores, the English spinner has an advantage of $\cdot 18$ of $1d.$ In sundries, including local and government taxation, fire assurance for mill, lighting mill, cost of management, and so forth, the Bombay spinner has an advantage of $\cdot 15$, and in packing and carriage of his yarn to China, the Bombay spinner has an advantage of $\cdot 44d.$, making a total balance of advantage to the Bombay spinner, on the yarn consumed in India, of $\cdot 95d.$ of a $1d.$ per pound of yarn produced, and on the portion which are exports from China, of $\cdot 89d.$ per pound of yarn produced. I have had these very carefully made out from returns made to me by cotton spinners in this country as regards the English expenses and by cotton spinners in Bombay, one of them the largest in the place, as regards Indian mills.

8240. (*Mr. Barbour.*) They are not founded on your personal experience?—No.

8241. (*Mr. Chaplin.*) They are not from personal knowledge of Bombay mills?—I have been there and I know them very well, but I have never worked them, and I have no interest in them.

8242. (*Sir T. Farrer.*) Then the result of all is supposing the exchange to alter, and the silver again to be $15\frac{1}{2}$ to 1, and the rupee to rise to 1s. 10d. or 1s. 11d., that would not have the effect of recovering for Lancashire the spinning of coarse yarns, or of preventing Bombay competing successfully with Lancashire?—I think not. The advantage to the Indian spinners would be over $\frac{5}{8}d.$ per pound of yarn produced.

8243. Do you know what the proportion of the coarse manufacture in Lancashire is, or has been, to the finer manufacture?—I should think it was about 10 per cent. of the whole.

8244. Then what is the effect upon the mills which used to spin the coarse yarn?—Most of them are out of work and some are being filled with new machinery to work finer counts.

8245. That is the process which is going on?—I think so.

8246. (*Chairman.*) I suppose you would not dispute that these adjustments of wages that become necessary by reason of any change in the rate of exchange are in themselves inconvenient, if not mischievous, and difficult to bring about without a great deal of controversy?—If they could be avoided, it would be an advantage, but I do not think they can.

8247. (*Sir T. Farrer.*) But what I rather gather from your evidence, is that you would say that though the alterations that are caused in prices and in wages, by the alterations in the exchange, have, like every other alteration, a certain mischievous effect, yet that it is small as compared with the alterations that are caused by a great number of other factors?—I quite think so. You asked me a question about the proportion of the Indian yarn exported. I promised to give it, and I will answer now if you will excuse me interpolating. The consumption of cotton by the Indian mills in the year ending 30th June 1887, was 284,000,000 lbs. That is from the return of the Indian Mill Owners' Association. Allow 20 per cent. for wastage, which is their own estimate, and it makes the yarn produced 227,624,000 lbs., the export during the year ending 31st March—the years are not quite contemporaneous—was 91,803,000 lbs.

8248. (*Mr. Barbour.*) Out of 228,000,000 lbs.?—Out of 228,000,000 lbs.; it is as nearly as possible 40 per cent., leaving 60 per cent. as used in the country.

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8249. Can you take that as being a fair average over a long period?—I should say it was a fair average generally.

8250. The period for which you give the production of yarn as 228,000,000 lbs. is not the same period as that for which you give the exports?—There is three months difference.

8251. (*Sir T. Farrer.*) Do you know whether these Bombay mills are set up with English capital or with Indian capital, or with both?—With both.

8252. There is a good deal of English capital in them?—A good deal of English capital, I think.

8253. (*Mr. Chaplin.*) I gather from your evidence that the English capitalists are beginning to find it more profitable to invest their capital in the cotton industry in India than in Lancashire?—I think it is principally the machinery makers.

8254. I understand it is developing very fast, the cotton industry in Bombay?—Very fast.

8255. It is increasing much faster now than it is in England?—Yes.

8256. And that you say is entirely owing to natural advantages?—Chiefly owing to natural advantages.

8257. But not entirely?—No. I have given you to what extent it is due to natural advantages, and to what extent it is due to an advantage in wages from the fall in silver. I do not deny that the fall in silver has been some advantage, but not nearly so much as the natural advantages.

8258. And even suppose the advantage given by the fall in silver was done away with, that would not prevent them increasing faster?—So far as coarse yarns were concerned, the Indian spinner would still have an advantage of $\frac{3}{4}$ d. per lb. There is also a limit to the amount of cotton available for him, and the amount of yarn that he could dispose of.

8259. And then I gather from you that it would be impossible for Lancashire to hope to compete successfully with the Bombay mills in the China trade?—In the coarse yarns. A great deal of what goes to China is not coarse yarn, and that England would still supply.

8260. But as far as the coarse yarn is concerned, there is no hope?—I do not think there is any hope.

8261. Even if the rate of exchange were abandoned?—No.

8262. What effect would that have on the cotton industry of England as a whole? Must it be prepared to look forward to a very serious reverse?—As regards coarse yarns, a permanent loss, I think.

8263. Is it not the case that a committee has been appointed by the Chamber of Commerce in Manchester to inquire into all the relative advantages of cost of production between India and England?—Yes, I am looking forward with great interest to its report.

8264. (*Mr. Barbour.*) It was stated that an experiment was to be made in spinning the fine yarns in Bombay; do you know how that resulted?—It has not succeeded at all.

8264a. (*Sir T. Farrer.*) We have had a great deal of evidence from others, and you have given a good deal yourself, upon the supposed disadvantages which have arisen from the alteration in exchange, and upon the supposed advantages which would arise from doing away with these fluctuations in the future by adopting a bimetallic ratio. Now what we wish to get is a statement from some persons who hold a strong monometallic opinion upon this subject of the disadvantages which are to be expected from the adoption of a bimetallic ratio. You have given them at some length in your evidence, but do you think that you could summarise them in some distinct and short form? Supposing bimetallicism were adopted, first, at any given ratio below the market ratio, and then in the alternative at the market ratio, what evils do you expect would flow, on the whole, from such change?—It is a little difficult to put it all in a nutshell, but I will endeavour to summarise. I believe the disadvantages will be: (1.) That inseparable from a double or alternative standard, that a debtor will have the option of paying in whichever

metal may at the time be depreciated. The chance of fluctuations in the standards of value is, therefore, not shared equally between the debtor and the creditor, but must always be in favour of the debtor. This is a manifest and grave injustice to creditors, especially if their contracts were entered into on the basis of a single standard, an injustice comparable only with that which, at earlier periods of our history, was sometimes inflicted on them by the wilful debasement of the currency. (2.) The position which London has acquired as the financial centre of the world, under a single gold standard, may be endangered if that standard is altered. In both these respects it makes little or no difference whether the fixed ratio adopted be $15\frac{1}{2}$ to 1, or corresponds with the present market values of the metals. (3.) England will lose the benefit which, as a large creditor on a gold basis, she has derived from the appreciation of gold. In other words, she will, for the balance of trade in her favour, amounting to some 80 to 120 millions sterling annually, receive fewer commodities from other nations. With a fixed ratio of $15\frac{1}{2}$ to 1, this loss will be immediate. With a fixed ratio representing the present market values of the metals, there will be no immediate loss; but, when an unlimited market is secured for silver by the opening of the mints, I believe the production of the mines will largely increase, and the loss will be gradually incurred, as prices rise from the increasing volume of the currency.

8265. (*Mr. Barbour.*) Would you look upon that loss as a loss to England, or only to those particular individuals who happen to have foreign investments?—I think it is a loss to England as a whole. (4.) By the rise in prices, immediate or deferred, according to the ratio adopted, the condition of the working classes will be rendered worse, for the cost of the necessaries of life will advance more rapidly than wages.

8266. (*Chairman.*) Would that matter if the wages re-adjusted themselves again to the higher prices; would not that be merely the trouble of a second process of re-adjustment in the opposite direction?—I think that would be a disadvantage.

8267. The reverse process would go on to that which has gone on? A fall in the price of the necessaries of life produces a fall in wages, and a rise in the price of the necessaries of life, produces a rise in wages?—The wages rise more slowly than the prices of commodities.

8268. That is the real evil, whatever is the inconvenience and trouble that arises from adjustment?—Yes.

8269. (*Mr. Barbour.*) And if that adjustment, made once for all, saved you from half-a-dozen adjustments up and down, in the future, it might, on the whole, be a gain?—Yes, but my opinion is that there will be no such finality of adjustment. (5.) If a ratio of $15\frac{1}{2}$ to 1 be adopted, the fall in the silver prices of commodities in India will compel her to deliver more produce for the silver she receives. (6.) The relative advantage, which Indian cultivators at present enjoy in their competition with producers in gold countries will disappear. (7.) I have endeavoured to show, (a) that the purchasing power of gold will diminish immediately, if a ratio of $15\frac{1}{2}$ to 1 be adopted, and ultimately, even if a ratio corresponding to present market values be adopted; (b) that, if this be the case, its annual production will be checked, and is likely to fall below the annual consumption in manufactures, and the requirements of hoarders; and (c) that as the stock diminishes, its market value will rise above its legal value, and the metal disappear from circulation; so that the metallic currency of the nations which may adopt the bimetallic system, will become wholly silver. That only one metal should be left to perform the function of money, I cannot but regard as very undesirable.

8270. (*Mr. Chaplin.*) Now we have two objections; to India, the disadvantage that she would have in paying the larger amount of produce for the silver.

that she requires?—I tried, when I was examined before, to point out the advantages which India gained in respect to which there would be a loss to India from bimetallism. She would have to pay a larger amount of produce for her silver.

8271. (*Mr. Barbour.*) But if gold disappeared, and we had a sufficient supply of silver, and nothing but silver, would it not be a positive gain? We would get rid of the exchange question and all troubles connected with it. Where would the loss arise if we had nothing but silver, and there was no gold in the currency?—The stock of gold and silver together will clearly be larger than the stock of silver alone. Their value is therefore less likely to be affected by variations in production, and I believe the two metals, used as at present, afford a less fluctuating standard than silver would by itself.

8272. (*Sir John Lubbock.*) Mr. Chaplin asked you whether, assuming it is proved that a fall in prices had been injurious to the working classes, this would alter your opinion; but would you not maintain that other things remaining the same, a fall in prices must be beneficial to the working classes?—Other things remaining the same, undoubtedly it must.

8273. Then you doubt, I think, whether international arrangements would maintain unaltered the ratio of value between gold and silver?—Permanently. Temporarily, they, no doubt, could.

8274. Therefore, whether bimetallism is a good thing or a bad thing, in your opinion it would be impossible to maintain the ratio unchanged between gold and silver?—Permanently.

8275. (*Chairman.*) Why do you say that? In what way, supposing that by arrangements between all nations there was a certain ratio fixed, in what way do you suppose that a disturbance would manifest itself?—In this way. For some time past the production of gold has fallen off. It has been unprofitable, even at the recent value of gold, and I maintain, that if the buying power of gold is decreased by the adoption of a ratio of $15\frac{1}{2}$ to 1, the production will be checked and very greatly diminished, and that it will not be sufficient to supply what is used throughout the world in arts and manufactures, and what is hoarded in India and other countries; that thus the stock of gold will year by year decrease, and in the course of a reasonable length of time, will become so small, that gold will go to a premium and disappear from circulation. And when that takes place, the bimetallic ratio is broken.

8276. (*Sir John Lubbock.*) That is exactly the point on which I wished to ascertain your opinion. The annual production of gold may be taken in round numbers to be about 21,000,000*l.*, and Soetbeer estimates that the amount used in the arts is 12,000,000*l.*; therefore your allegation, as I understand, is that if the production of gold was discouraged, the amount used in the arts would become so large in relation to the total amount, that practically the value of gold would be regulated not by its use in currency, but by its use in the arts?—That is what I think will occur. I believe the production will fall off to very much below 21,000,000*l.* if the ratio of $15\frac{1}{2}$ to 1 is established.

8277. You would admit, if I understand rightly, that if the only use of gold and silver was for currency, then, theoretically, it might be possible to keep the ratio equal, but that the use in the arts being so important, practically, it would be impossible to do so permanently?—Yes, if the production of gold seriously diminish, as I think it will.

8278. (*Chairman.*) Would not, in that case, the use of it for the arts be likely to diminish?—The first effect of an adoption of a ratio of $15\frac{1}{2}$ to 1 would rather be to increase the consumption of gold, because it would reduce its price.

8279. Yes, but then as soon as that resulted in a diminished production, the natural tendency of it would be to increase in value?—As soon as you have an increase of value your ratio is broken.

8280. (*Sir John Lubbock.*) The value for monetary purposes would remain the same; the value for the arts would be increased?—When that takes place, then the bimetallic ratio has ceased to operate.

8281. The populations of the world at present using gold are now about 140,000,000, according to Mr. Seyd, and those using silver are about 800,000,000; therefore if you were to have a general bimetallic arrangement, assuming such a thing to be possible, that the whole world should use both gold and silver, you would really introduce a change under which the number of those now using silver and who would adopt gold would be much larger than that of those now using gold who would adopt silver?—I have not studied it in connexion with the amount of population using the metals at all.

8282. When you spoke of the effect of bimetallism, were you assuming that India and China were to come into such an arrangement?—I had it in my mind that India would, but not China.

8283. Well, then, if India does, the populations which now use silver and do not use gold coming into the arrangement would be far larger than those now using gold and not silver?—I cannot speak of the figures at all as regards population, because I have not considered them. I have no doubt your figures are correct, but I do not know.

8284. But assuming it to be so, that the populations using silver now and coming into the bimetallic arrangement, would be greater than the populations now using gold and coming into the arrangement, then the demand for gold would be likely to be increased by a bimetallic arrangement?—I should not like to answer you without considering it, because it depends a good deal not upon the population only, but upon the amount of trade. For instance, the population in this country and a similar population in India would be quite different.

8285. No doubt that would be so; still you would have, naturally, to take the number into consideration?—You would have to take other circumstances into consideration.

8286. Now supposing that bimetallism was adopted at the ratio of $15\frac{1}{2}$ to 1, then I understand you to allege that the present ratio between gold and silver being 20 to 1 a legislative enactment, compelling payment in silver at the ratio of $15\frac{1}{2}$ to 1, would be an arbitrary interference with existing contracts?—Decidedly.

8287. And that therefore in India those who had made contracts in silver at the present ratio, would be arbitrarily compelled to pay something like 25 per cent. more than their contracts?—I think those who are trading with India take good care not to make any such contract.

8288. Those who are trading might do so, but of course there have been a good many permanent arrangements made in India?—Of course it would be an injustice to those.

8289. That would be in your opinion a very material objection to it?—It would.

8290. (*Mr. Barbour.*) Do you think it would be a greater injustice, than the injustice of making foreign nations and British colonies, who have liabilities to us in gold pay, as you say they do, some 25 or 30 per cent. more than was contemplated at the time the contracts were made?—There is this difference which I have endeavoured to point out before, that one would be our act; the other is not our act.

8291. (*Sir John Lubbock.*) You also consider, do you not, that the confidence in the stability of our system of currency has greatly contributed to our commercial position amongst the nations of the world?—I do not think I have said so in evidence.

8292. I wish to know whether that is your opinion?—Certainly it is my opinion.

8293. (*Mr. Barbour.*) Supposing that bi-metallism were adopted by all the civilized nations at the same ratio, we will say the market ratio of the day, and supposing that in the course of time gold became so scarce that its value was controlled by its use in the

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arts, and that the market ratio came to differ from the legal ratio, what great evils would follow; what would be the evils supposing we adopted bimetallism at the market ratio of the day, and ultimately the ratio of gold came to differ from the legal ratio? In that case, I believe, the cheaper metal would become the standard everywhere; every country would have the same standard, and there would be a par of exchange between all countries using the metallic standard. Nobody would be obliged to take gold money at any ratio other than the legal ratio unless it suited him to do so? To me it seems a not undesirable result, because we would get rid of the difficulty of exchange and all our present currency troubles?—The evils arising from the adoption of a fixed ratio, corresponding to the present market ratio, would be less immediate than those caused by the adoption of the $15\frac{1}{2}$ to 1. Looking at the fact that while silver was declining in price from $61\frac{1}{2}d.$ per oz. in 1862 to $45\frac{3}{4}d.$ per oz. in 1886, the production in the United States rose from 900,000*l.* in the former to 10,800,000*l.* in the latter year, I cannot but feel a strong conviction that, under the circumstances you put to me, the out-put of silver mines will show a further important increase, that the metal will in time depreciate, and ultimately prove less stable as a standard than gold. Of course, its variation will be in an exactly opposite direction, and lead to an inflation instead of a contraction in prices.

8294. (*Sir John Lubbock.*) Our present system of currency is, that we use gold for the larger payments, silver for the smaller, and copper for the smallest payments, is it not?—I think the largest payments are principally made by cheque.

8295. I am not now speaking of cheques, but as regards the actual use of coins?—It is self-evident that it is so.

8296. And it is very convenient, is it not, to have three metals that we can use in that way for the payment of different amounts?—Quite so.

8297. And in France, under the old arrangements, there was generally an agio on either gold or silver as the case might be, was there not?—There was, frequently.

8298. And if gold was driven out of circulation, would that not be a great inconvenience?—I should think so.

8299. Therefore, there is a great practical convenience in everyday life in having a coinage which is partly gold, partly silver, and partly copper?—Yes.

8300. And that convenience would be interfered with if gold were driven out of circulation?—Certainly.

8301. (*Chairman.*) If we adopted the American habit of using notes, whether representing gold or silver, I suppose it would not matter then whether you had gold or silver stored in the treasury upon which those notes were founded?—Of course, metallic currency has advantages of its own.

8302. (*Mr. Chaplin.*) One question in relation to what you said in reply just now, bearing on that very point. If you made gold less valuable, you say you are afraid its production would be greatly lessened?—Yes.

8303. Well, we have been told more than once before this Commission that the production of gold does not depend at all upon its profit; and it has been stated, I think, that the whole of the gold of the world has been produced on a loss?—That is an opinion, but it is not my opinion.

8304. You think it does depend upon its being profitable?—A small portion of the gold used may be called a bye product. I have already said that I do not know anything personally about these matters; but this is the conclusion I have come to from reading. A certain proportion of the gold produced is a bye product in the production of silver. It is produced along with silver, and no doubt would continue to be produced whether at a loss or at a profit to get the profit on the silver. But the larger proportion of

gold produced comes from gold mines, and those certainly have not been worked continuously at a loss.

8305. You dispute the theory altogether, that the gold is produced by the gambling instincts of mankind, and that a large proportion of it has been produced at a loss?—I do not know what may have been the case in days gone by, but now if gold mining companies in Australia, for instance, do not pay dividends they are wound up.

8306. (*Mr. Montagu.*) You gave seven reasons why the $15\frac{1}{2}$ to 1 ratio should not be adopted; seven objections or disadvantages to the ratio $15\frac{1}{2}$ to 1. At the moment you could not point to one that would remain if 20 to 1 were adopted?—Several of them would apply to the ratio of 20 to 1, including the last one.

8307. What was that?—The production of gold would be checked.

8308. How could that be possible if you do not alter materially the existing relation between gold and silver?—The tendency will be to produce less gold, as its buying power diminishes.

8309. And also, do you not see, on the other hand, great advantage in having a stable relation between gold and silver, so that capital should find an increased outlet in silver-using countries?—I admit that a stable ratio between gold and silver is in itself an advantage. I have already stated so in my examination, but I deny that bimetallism will bring about a permanent stability of ratio.

8310. (*Chairman.*) If the view be correct that there is a tendency in the gold production to diminish, which needs to be stimulated by a rise in the value of gold, would that not tend to show an unsatisfactory condition of things, inasmuch as your standard is more or less unstable?—It would tend, of course, to some further rise.

8311. And you agree that the more unstable the standard, the less satisfactory as a standard?—I consider gold will be less unstable than silver.

8312. (*Mr. Montagu.*) Being connected with the Indian trade, you are aware that the Indian banks are very reluctant to place sterling in India or China permanently?—I have nothing to do with any of the Indian banks.

8313. That some bankers hold their capital in this country, rather than risk investing it in India?—It may be so.

8314. (*Mr. Barbour.*) Do you know that they keep the balance in the Eastern banks as low as they can?—I do not know.

8315. (*Mr. Montagu.*) You mentioned that you considered low prices advantageous to this country. You would not include in that the declining tendency of prices—the transition to lower prices?—That produces loss to the trading community while it is taking place. A shrinkage of values injures anybody who holds a stock of the article whose value shrinks.

8316. And it kills enterprise?—I do not think it kills it.

8317. Say diminishes it?—It diminishes it for the time.

8318. And therefore until prices do reach a level of some permanence it is a disadvantage, a decline to this country?—It is a disadvantage to the trading community.

8319. (*Mr. Barbour.*) Is it a disadvantage to the producer; does it check production? He gets a lower price; the wages he pays, rent, and so forth, remain the same for a time; does not this impose a check on production?—It has that tendency until rents, wages, and so forth are adjusted.

8320. (*Mr. Montagu.*) One of the disadvantages you mentioned was, that if silver advanced in price, the natives of India would have to give a larger quantity of produce for the silver; but would not, on the other hand, their enormous stores of silver be rendered more valuable and stable, and the country would be rich therefore?—A rise in the price of silver would benefit them if they were sellers of silver.

8321. You say that if silver advanced in price, it would be an evil for India to give more produce for that silver, but if the silver they receive is appreciated in value by being advanced in price and rendered available for exportation, would not that be compensation?—Yes, but India never exports silver; India has always been a receiver of silver. If she were an exporter, that argument would apply, but it does not under the circumstances which exist.

8322. But it is quite possible that she might want to export silver?—I do not think so.

8323. Then you say gold would have a tendency to disappear from circulation; are you aware of the quantity of the gold supposed to exist?—Yes.

8324. Do you remember the figures. Was it 600,000,000*l.*?—I gave them in my previous evidence.

8325. And it is estimated that the gold now produced is about 20,000,000*l.*, and that used in the arts about 12,000,000*l.*; therefore you assume, possibly, that not only will gold diminish to the extent of the production of gold below that required for the arts, but that at present in circulation will be used up?—I would prefer repeating the figures which I gave on the previous occasion.

8326. What is the figure you make it of the circulation?—“Assuming that the stock of gold now is “1,200,000,000*l.*, of which 700,000,000*l.* consists of “coin, or of bullion held by the banks, which may be “considered as good as coin.”

8327. 700,000,000*l.*; well, that is even more than I recollect. Do you assume the possibility of the production of gold, through its want of appreciation, becoming so diminished in production as to become less than the consumption for arts?—Yes, I assumed in the forecast which I ventured to give when I was here before, that the whole annual production of gold would be largely curtailed, and probably sink. It is quite conjectural to what it will sink; but I took it at 6,000,000*l.*

8328. It would sink by 6,000,000*l.*?—No, to 6,000,000*l.*, that would give 12,000,000*l.* annually to be taken out of the stock of gold for hoarding and use in arts.

8329. And do you know what quantity of gold is produced in the silver mines in America?—I do not know. I cannot tell you how much is produced in mines which principally yield silver.

8330. And you admit that that would not be affected?—Probably not at all.

8331. Therefore if there is sufficient gold found with silver, and there is a larger value of gold found in some mines in Montana, if that is more than is used in the arts, there would be no danger?—If you assume that the production of gold will continue equal to the requirements for arts and for hoarding, there will of course be no diminution in the stock.

8332. Sir John Lubbock said that in France there used to be an agio on gold and silver at different periods; is it not the case that that only arose when either was wanted for exportation, and not for internal use?—I think that gold was frequently at a premium for convenience of travellers.

8333. Yes, but never for internal use?—Yes, for the convenience of travellers in France. At a time when it was not in active circulation. I state it as a matter of history. It was before my time.

8334. Not since the Australian gold discoveries, but before then?—Before then I believe that gold was

for some time not in actual circulation in France, and a premium was paid for it.

8335. Since 1850 that has not been the case; since the Australian and Californian gold discoveries?—Since then I believe there has been no agio for internal use.

8336. For the last 30 years there has been no premium on gold and silver for internal use in France?—Only for export as far as I know.

8337. Have you any idea of the amount of gold hoarded in India?—The amount of gold in India, not the slightest. I could give you the amount for many years past that has been annually taken by India.

8338. You have no idea. And do you think if India were included in a bimetallic convention, that that would have the effect of bringing out the gold?—On the contrary, I think a great deal of what is now hoarded there in silver would be hoarded in gold.

8339. Is it not the fact that it is hoarded in gold in the form of armlets and bangles?—A portion of it.

8340. And why should it be increased by a change of the ratio?—A certain portion of it is not hoarded in the shape of ornaments, but in coin or bars, and I think the Indian hoarder is likely to prefer gold as being the better investment.

8341. Is that because gold has continually advanced in price?—Because he has known gold advance in price, and if it suddenly becomes lower in price, he would think it a good time to invest.

8342. But supposing there was no change, and that it should not continue to rise, would that not have the effect of realising gold, and letting it produce interest?—I do not think so. No, the hoarding instinct is unreasoning.

8343. I thought the natives were investing more in the rupee loans than they used to?—I think not.

8344. (*Sir John Lubbock.*) You stated just now that you were not exactly aware as to the amount of the population of countries using respectively gold and silver. Let me put to you this theoretical question. Assuming that the amount of silver in circulation in silver-using countries was equal to the amount of the gold in circulation in gold-using countries, then the adoption of bi-metallism would not necessarily tend to raise prices, would it?—Throughout the world, as a whole, no.

8345. In such countries?—It would tend to raise prices, I think, in what had previously been gold countries.

8346. That would depend upon the ratio?—Upon the ratio, certainly. With the ratio of 15½ to 1, the effect would be immediate.

8347. But if you take the ratio of 20 to 1, if you take it at the market ratio of the time, then I understand you to say that it would produce no effect on prices, and, therefore, it does not at all follow that the adoption of bi-metallism would raise prices; but whether it would raise prices or not, would depend on the terms and conditions under which bi-metallism was adopted?—The immediate effect of the adoption of a fixed ratio corresponding to the market ratio would be nil, but the ultimate effect would depend on the production of silver. If, when the silver mines are assured of their market, they pour out much larger supplies than they have done hitherto, it would have an ultimate effect upon prices.

8348. That would depend on whether it had the effect of stimulating the production of silver?—Yes.

The witness withdrew.

Adjourned till Monday.

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18 Nov. 1887.

THIRTY-SEVENTH DAY.

Monday, 21st November 1887.

PRESENT :

THE RIGHT HON. LORD HERSCHELL, the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.
MR. J. W. BIRCH.
MR. HENRY CHAPLIN, M.P.
SIR THOMAS H. FARRER, Bart.

MR. C. W. FREMANTLE, C.B.
SIR JOHN LUBBOCK, Bart., M.P.
MR. S. MONTAGU, M.P., and

MR. GEO. H. MURRAY, *Secretary*.

Mr. WILLIAM FOWLER re-called and examined.

Mr.
W. Fowler.
21 Nov. 1887.

8349. (*Chairman*.) With regard to those articles which you say are the same in price, or have risen between 1854 and 1884, how would it be if you compare 1873 and 1884?—Bacon, identical prices, 1873–1884; beef the same; brandy risen about 100 per cent.; butter risen about 16s. a cwt.; but as regards butter it must be remembered that butterine has come in since that time, and notwithstanding that, it has risen about 16s. a cwt. Some estimates estimate the rise at more. Cheese may be put down as identical; cocoa has risen 20s. a cwt.; coffee has slightly fallen, but I should say that there have been great speculative changes in coffee in recent times, but they have had nothing whatever to do with any question of money; currants remain almost identical; eggs have slightly fallen; hides have fallen slightly; oats identical; oxen, I think, were mentioned, and they may be said to be identical; pepper identical. Between 1873 and 1884 there is a heavy fall in potatoes; but it really was a mistake to quote potatoes, the oscillations in price are so enormous; raisins are identical; beer has slightly risen; cloth may be said to be identical; fish identical; leather had risen about 14s. a cwt.; silk had fallen considerably; spirits had fallen slightly; cotton yarn had fallen; and linen yarn had fallen. So that, practically, it comes to this, there is no doubt if you take 1873 and 1884 there is a different result to that obtained as between 1854 and 1884, that is to say, a large part of the articles remain the same in 1884 as in 1873, and some have fallen between 1873 and 1884, and it is a remarkable thing, that in such a considerable list as that there should be even something like an uniformity of price, if, as is alleged, there is a cause operating towards a fall which ought to influence every article. That was the only way I wished to use this argument, and I do not think it is materially changed by the comparison between 1854 and 1873.

8350. (*Mr. Chaplin*.) In regard to some of these articles there has been a considerable fall, I suppose, since 1884?—There is; but I did not go into that, because I think nobody would allege that that was a money question.

8351. Since 1884 there has been a very considerable fall in beef?—Yes; I do not know exactly how much, but a considerable fall. It has fallen very heavily in America, and it has fallen here.

8352. Do you remember what has been the fall in the price of silver since 1884; has that been much larger than it was before?—No, I think in 1876 it was almost as low as it has ever been; I think the rupee was 1s. 6d. in 1876; there has been a very heavy fall once or twice.

8353. What I wanted to arrive at was this: is there any comparison in the great fall since 1884 in the price of some of these commodities that you mentioned, and the fall in the price of silver?—For instance, the great fall in wheat has taken place since 1884.

8354. (*Chairman*.) But I suppose the fall in silver from 1873 to 1884 was much greater than any fall of silver between 1884 and 1887?—Oh yes, it fell from 1s. 10½d.

8355. I have now some questions to put on that branch of our inquiry which relates to the proposed remedy, by means of what is known as bi-metallism. I believe you have given some attention to that subject?—I have. I should like, in the first place, to express my great doubt whether, as a matter of principle, it is right to attempt to fix values by Act of Parliament, or by agreement between nations. And I should like to read two passages, one from a predecessor of Mr. Fremantle's, who wrote in the year 1757, and one from my late friend Mr. Walter Bagehot. In Harris, on Money and Coins, page 46, are these words, "Silver and gold with respect to one another, are, like other commodities, variable in their value, according as the plenty of either may be increased or diminished; and an ounce of gold that is worth a given quantity of silver to-day may be worth more or less a while hence. And, therefore, it is impossible that both these metals can be a standard measure of the values of other things, at the same time; and one of them must be a mere commodity with respect to the other." Now at that time, the money of England was silver, and all through Harris's book he argues in favour of silver as the right money. Here is another passage, when gold was our money, from Mr. Walter Bagehot's collected papers on Depreciation of Silver, page 13. "The same causes which regulate the value of gold and silver as respects other things, determine, as we believe, their value relatively to each other, and, therefore, as the circumstances of production of both are constantly changing, it is contrary to principle to make or attempt to make by law a fixed equation between them."

8356. By saying that the one at different times will be worth more or less than the other, he meant, I suppose, that it will cost more or less to produce?—That is the point exactly. Of course, opinions, as to the influence on price of cost of production, have changed a great deal since Harris's time, but still, I think, that speaking generally, it is a sound idea, that if we were to have a measure of value, it should, if possible, be one article and not two. That is the question of principle, and I cannot get out of my great objection to any such arrangement; and for reasons that I shall indicate presently, I am entirely unable to anticipate the consequences of that change, which might be, in certain events, extremely serious to a country like ours.

8357. Do you think that a fixed ratio between silver and gold would be possible, either as adopted by a single nation, or by means of an international agreement?—I do not want to exaggerate for a moment on this question, and I think there has been a great deal of exaggeration on both sides. I think it is perfectly clear that if you create an extra-

ordinary demand for silver by Act of Parliament, you will tend to raise the price of silver. I think that was what was done during the arrangement of the Latin Union. There was a demand for silver as long as there was a free mintage, which was what you may call something more than a commercial demand. It was a Government demand, and, therefore tended to keep the price of silver higher than it otherwise would be. I think there is no doubt about that. I never disputed that for a moment, but what I have doubted is, whether that would be a sound arrangement for us to undertake as a new thing, we having adopted a single measure of value ever since 1816. And what has made me more doubtful, I must say, has been the extraordinary difference of opinion amongst those who advocate what is called the bi-metallic system, as to what the ratio should be between the two. I think it is very tempting to try and create what is called "one money" for the world; but I gravely doubt whether it is possible without dangers that are very serious for us in the position that we hold. And one remark, made by one of the most important of the bi-metallists has frightened me perhaps more than any other. I think in page 41 of his last pamphlet, he says it does not matter whether it is 10 or 20.

8358. (*Mr. Chaplin.*) Are you referring to M. Cernuschi?—Yes, he says it does not matter whether it is 10 or 20, "the great Powers would be just as free to stipulate the ratio of 10 as the ratio of 20. The ratio of 10, or the ratio of 20, once promulgated, nobody would be able to resist it." ("The Bi-metallic Par.")

8359. He then goes on to say something more on the choice of ratio. "But the choice of ratio should be determined after examination of the interests at stake"—Quite so; but still he says 10 would work as well as 20.

8360. No, he says the great Powers would be just as free to stipulate the ratio of 10 as the ratio of 20.

(*Chairman.*) I think he said something more than that, that if they once promulgated it?—Nobody would be able to resist it. And also very curiously he says, I would not have all the world in it. India must not come in. Well, I should be disposed to agree with him about that.

8361. (*Mr. Chaplin.*) He says, "India, and indeed, Asia, might remain silver monometallic without the least inconvenience"?—Yes, but look here; "We bi-metallists do not ask that every government in the old world and the new enact bimetallic laws. We do ask that the great metallic Powers (the United States, Great Britain, Germany, France) unite to restore to all nations what they all once had, but unwittingly lost in 1873—namely, a universal bimetallic par of exchange." (*Ibid*, p. 38.)

8362. Well, is not that, of course, the agreement of the United States, Great Britain, Germany, and France would be quite sufficient to accomplish the purpose with the others?—So he says, but I doubt that very much. But if it is such a precious thing for us, why should it not be as good a thing for India.

8363. Yes, but it is not proposed to include Russia?—"No," he says, "it is enough for bimetalism to be Atlantic; that is to say, practised visibly by the United States, Great Britain, Germany, and France. The great thing is that silver should be universal money." (*Ibid*.)

8364. But is it not the contention of M. Cernuschi, that the adoption of that principle by these four nations that he mentions would be sufficient in itself to make bimetalism universal?—Then that is a thing we do not see; that is to say, I am doubtful about that, I am jealous of entering upon such an arrangement.

8365. I should like to clear this up. What I understand from his pamphlet is this, that he does not object in any way to the inclusion of other nations, but he says that it is not necessary; that those four nations joining together would be sufficient to make bimetalism universal, and that the inclusion

of the others, although there is no objection to it, is not absolutely necessary?—In his own mind, I gather that he is very doubtful about going any further. Of course, he puts it forward as what he calls an Atlantic arrangement.

8366. (*Mr. Montagu.*) I think you will find that M. Cernuschi is quite willing for everybody to come in, but that the minimum number of contracting Powers would be the four great Powers, France, Germany, the United States, and England; the maximum might comprise the whole world, but it is not necessary?—Quite so.

8367. (*Mr. Chaplin.*) And does he not found that contention upon the experience of the past, and the fact that France and the countries of the Latin Union were effectual in making bimetalism universal before?—I think probably he did think so, but I am sometimes a good deal puzzled to know how he would have dealt with countries like Russia and South America, and those who have really no metallic currency at all, and no metal back to their currency, who have merely inconvertible paper, and yet are very large operators, like the Argentine Republic and Russia and Chili, very important commercial countries.

8368. (*Sir John Lubbock.*) If I understand aright, your contention is, that if Germany, Italy, France, and the United States, with a population of 130,000,000, could not maintain the ratio without us, that the addition of our 32,000,000 of population would not enable that to be done?—Yes; but I was going later on to mention that the past experience makes me fear that even these countries, after making a bargain, would not be bound by it, and would go off from it if it suited them, as France did in 1873, so that I hesitate, not merely because I do not like the thing on principle, but I cannot be sure that even if I got this arrangement it would last; no treaty would really bind either of the parties. Supposing there came a war or some great disturbance, even a financial disturbance.

8369. (*Mr. Montagu.*) Did France break faith in any way?—I never said that she did.

8370. But you say she broke the treaty?—Well, I mean to say she broke the arrangement for free coinage of silver.

8371. I thought it was all the Powers comprising the Latin Union that agreed?—They all agreed; but then we are told that that was the great cause of the trouble; that they all went back from their arrangement to coin silver freely. That has been the history of our past.

8372. (*Chairman.*) What I understand you to mean is, that if nations hereafter found it convenient to go back from the arrangement to coin freely both gold and silver, as France did in 1873, they would not refrain from doing it merely because they were bound by a treaty?—No, you could not depend upon their being bound. We could not let our currency depend at all upon the goodwill of another country. We must have our currency system right in principle if we can, and, as far as possible, be friendly with all other peoples, but that we should not have our whole currency system liable to be disturbed by one or two countries breaking a treaty.

8373. (*Mr. Barbour.*) When you speak of the currency system, do you mean the standard of England, or do you include the other portions of the Empire which use silver?—I mean the currency system of England.

8374. (*Mr. Chaplin.*) But if once an arrangement of this kind were come to between the countries specified, what object could any one of them have in departing from it?—I do not know. I do not know what circumstances might arise.

8375. But you cannot see that any one of them would have any object under any circumstances in departing from it?—It is really impossible to say what object they might have. They might have a great war to disturb their position immensely; who can say?

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8376. But supposing they had a great war, or supposing commercial changes were to occur, how could they be benefited, do you think, in any way by departing from this arrangement?—I do not know; I cannot say. But, after the experience of 1873, and what occurred when Germany changed her system, I feel a great hesitation in trusting our system to the good will of any other nation.

8377. (*Chairman.*) Then, I think, you were pointing out that it was not proposed to include Russia and the South American States. In your view, so far as this bi-metallism is suggested as a remedy in respect of the impulse given to competing countries that have a silver currency, or a currency different from ours, would that apply equally to Russia and South America, notwithstanding the bi-metallic arrangement amongst the other great Powers?—The bi-metallic arrangement, I understand, would leave things with them exactly as they are. There would be no change whatever. They would not be asked to come in. They are not mentioned by M. Cernuschi, or anybody else that I am aware of; and you must not go away with the idea that their influence on commerce is unimportant. I am told by the highest authorities, that, as far as our wheat trade is concerned, for instance, we are suffering more, if we use the word suffering, from competition of Russia than from that of any other country in the world.

8378. (*Mr. Chaplin.*) Is that borne out by the returns of the imports?—So I am told.

8379. (*Mr. Montagu.*) But, in the case of Chili, the bi-metallic convention would facilitate the resumption of specie payments in silver, and so it has been urged with regard to Russia. I have never heard of anyone desiring to exclude Russia from the arrangement, as she might be willing to resume specie payments in silver when silver is available?—I wanted to mention here specially that question of the competition of these countries with our country, in certain cases, and to allude also to the case of India in connection with that. The case of Russia appears to me to be very remarkable. I have here the statement of the exports of wheat from Russia in Europe during each of the last 20 years into the United Kingdom, and I have put side by side the exchange of the year as nearly as one can tell it (*see Appendix*). I will only make this general remark, which agrees with the remark made by Mr. O'Connor, with regard to the exports of wheat. There is no obvious relation between the fall in the exchange and the export of the wheat. That is to say, you have an exchange of 23 in 1885, and an export of 12,000,000 cwts., in round figures, of wheat. But take it further back—take 1884, you have an exchange of 23 and an export of 5,400,000 cwts. With the same exchange in 1885, you have an export of 12,000,000; and with an exchange which had fallen to 20 or 21 in 1886, you had an export of 3,700,000. I inquired about the cause of the falling off in the export, and they said the falling off arose from a very bad harvest in Russia in 1886; but this year the harvest is so great in Russia that the exports are expected to come forward on a tremendous scale.

8380. Have you got the returns for this year?—I have not got the returns for this year.

8381. As matter of fact, the Board of Trade Returns for the first 10 months of the present year ending 31st October only give 983,542*l.* as the value of the wheat imported, as against 1,229,759*l.* for 1886. That does not look as if it could at all approach the amount imported in previous years?—The harvest is not very long over, and the new crop has not yet come forward largely. I mention this because a very strong point is made, that we should try to get rid of excessive competition arising from the peculiar condition of silver. Now, you would not get rid of the competition from these countries that use no silver but have merely inconvertible notes, and therefore I think it is very important that we should not exaggerate the influence of this bi-metallic

system even if it were adopted. I do not know whether this would be the right place to refer to the question of the Indian exchange. There is a very widely-spread notion that the great competition of India with us as regards wheat arises from the silver question, and that if we changed the position of silver and got the rupee back to its old point, we should at once get rid of what we may call the excessive competition with India. Now, I have read Mr. O'Connor's statement "On the effect of a low rate of exchange on the Indian export trade." I have always said that there was a bounty arising to a certain extent from the condition of silver, as regards the exporter of wheat from India in this way, that if he gets a gold price he can buy with his gold more rupees than he could formerly have bought, and to that extent he is helped in his export by the low price of silver. Mr. O'Connor says that that is not so, because prices in Calcutta of exported produce have not increased; if anything, they have fallen. And he says, "the exchange has fallen 20 per cent., which means a gain of 20 per cent. to the exporter. But prices in England have fallen 30 per cent. all round, and this means a loss of more than 20 per cent. to the exporter, allowing for the slight fall in prices in Calcutta and Bombay. The exporter, therefore, has not gained directly by the fall in exchange; he has simply been saved from a certain proportion of loss." Now, I say saving a certain proportion of loss is equivalent to a gain, and I think, therefore, that there is a slight gain—not 25 per cent. or anything of that sort which has been stated—but there is a gain to the exporter of wheat from India, and that is entirely confirmed by what Mr. Waterfield says at question 2551 and 2568. I need not repeat it, but it is in substance the same thing as Mr. O'Connor has said here. He says the causes of the stimulus to production are "the reduction of cost of transport from the field to the port of shipment, and from the port of shipment to the consuming market, by the extension of railways, by reductions in railway rates of freight, and by reductions of sea freight." With that I entirely agree, but I think there is also something to be put to the change in the exchange. But I ask you to consider whether, if there be an advantage to the exporter in India, it is right for us to endeavour to get rid of that advantage by raising the rupee, not by any ordinary commercial action, but by a special action of this country interfering with the natural course of commerce, and creating a fictitious value for silver, as I reckon it to be. The stronger the case is stated as regards the help given to the producer, the stronger it makes our action if we interfere with it. My view is, that there has been great exaggeration as regards the effect of exchange; but so far as it goes, I think it has helped the exporter and producer in India, and I do not see why we should interfere with that help or benefit, whatever we may call it.

8382. (*Chairman.*) That is to say interfere, with the object of interfering with it; but if it were expedient not for the purpose of interfering with that aid to competition, but for general currency reasons, such as making the standard more stable, and other grounds that are put forward, then, I suppose, you would not consider that there was anything wrong in doing it; though incidentally it might deprive the Indian producer of that advantage which he has gained accidentally, you may say?—I think if it was essential for the benefit of the whole empire, if it could be proved that our commerce and our position as a commercial country could be vastly benefited by altering the price of silver, India must take her chance with the rest of the country. I greatly doubt the benefit. Then I say, if it be doubtful whether there would be a great benefit to the community, it would be extremely hard upon India to take from her any advantage that she may have. Of course India is divided into two camps, as it were. The Government are greatly injured by the present price of silver and official people are greatly injured; but the community, accord-

ing to all evidence that I can find, are benefited by the present condition of things, and not injured in any way.

8383. You are arguing, as I understand, against those who put forward this advantage to India as a ground for our adopting bi-metallism, in order to counteract it?—Certainly; but I mentioned it here because I think it is interesting in connection with the cases of Russia and others in this way, that if you were to abolish this difference as regards India by altering the price of silver, you would not get rid of competition as regards Russia and those countries which have inconvertible notes. As I make it out, altering the silver in this way would not in the slightest degree diminish the competition of Russia, because she does not work with silver. Silver does not affect her, and she works with inconvertible notes, and she would have just as much benefit if we altered the value of silver as she has now, as far as I understand it. The way it operates is this: A man in Russia sells his produce to a broker in St. Petersburg, the broker sells the wheat or oats to the merchant, the merchant draws in gold upon London, and with that he gets paper roubles in St. Petersburg; and if you produce the bi-metallic par, as it is called, that operation would go on exactly as it does now; there would be no change whatever, and, therefore, you would not get rid of the competition of these note-circulating countries, if you got rid of the competition in some degree of the silver-using countries. The difference would be this, instead of taking your stuff from India, which takes an enormous quantity of our productions, and is part of our own territory, we should be taking the stuff from Russia which puts very heavy duties upon our imports, and is generally not very friendly to us; and if we compare the two arrangements, I much prefer the present arrangement.

8384. (*Mr. Chaplin.*) The bounty, in consequence of the depreciated rouble in Russia is larger even, I think, than the bounty in consequence of depreciated silver in India, is it not?—Well, you ask me there a question that it is very difficult to answer. I think it ought to be larger; I think it may be larger because there seems to be a double bounty in converting the rouble into silver and the silver into gold, but as a matter of business it is done exactly as I tell you; there is no question of silver at all; the man draws in gold upon London, and then it is turned into paper roubles.

8385. (*Chairman.*) What discount is the paper at now?—36 is the par, or 37; I am doubtful which. The actual price is slightly over 21, so that there is an immense advantage apparently to the exporter if the lowness of the exchange is a source of great advantage.

8386. So that there is a greater depreciation of the Russian paper than there is of the silver rupee?—Oh, far greater. Mr. Gibbs has pointed out, as regards Chili, the same thing in the same way. He said the producer in Chili has an immense advantage, because, as is very remarkable, in Russia and in Chili the price of articles of ordinary use measured in inconvertible paper has not changed.

8387. Are you sure of that about Chili?—Yes, I inquired specially. Mr. Gibbs has stated it distinctly; and I inquired of a Chilean merchant closely connected with Mr. Gibbs the other day, and he said, "I have made inquiry, and it is so." Very well now, what is the operation? You get a large amount of rouble notes or inconvertible notes in dollars, and the dollar is down in Chili about as much as the rouble is in Russia. If people are able to get with each paper rouble or dollar as much of ordinary necessities as ever they did, it seems to me that it must be a great advantage to those who sell under those circumstances. But what I want to lay stress upon is this, which illustrates a point I made in my first day's examination: here we see people issuing notes excessively, and yet the price of articles measured in that "money" has not changed. So we see in India silver is in plentiful

supply, but the price in silver of ordinary articles has gone down, not up.

8388. (*Sir T. Farrer.*) Does that apply to articles imported from a gold country?—No, I do not say that; I do not think it applies to those imported from gold-using countries like England, but it applies to the ordinary productions of the country. Well, I argue from that how much more the price depends upon the supply and demand of the article than any condition of money. Here you have a situation which, according to all the old theories about money, ought to raise the price in the country of ordinary articles produced in the country, but it does not raise them.

8389. (*Mr. Montagu.*) Are you not aware that there has been a great effort made by the Russian Government to resume specie payments, and that the rouble notes have been ordered to be destroyed to the extent of about 50,000,000 roubles a year?—Well, I have seen it stated, and then they make them again.

8390. They have been destroyed and the amount has been reduced from 1,200,000,000 to about 1,046,000,000?—The best answer to it is, that the exchange keeps on falling.

8391. Is it not a fact that the exchange falls not because of any excessive issue of paper, because the paper really is insufficient for the wants of the country, but it arises from the distrust of Russian finance outside of Russia. For the population, 1,046,000,000 of roubles, that is, about 85,000,000*l.* sterling, appears to be a very small circulation, according to our ideas in Europe; and there is an effort being made to resume specie payments?—I am exceedingly glad to hear it. It is the first time I ever heard it. I have seen the most extraordinary accounts of the burning of the rouble notes every year, but I have been told that they make them afterwards.

8392. I have a letter which states that they burned 30,000,000 a year between 1882–83, and 25,000,000 a year in 1884–85?—Does your information state how many new ones they printed?

8393. The issue from the Bank has been diminished. It stood at 467,000,000, and it has been diminished to 330,000,000; that is, the excess issue of 467,000,000 ordered by the Government after the war has been reduced to 330,000,000?—Your information does not at all agree with mine, that is all I can say.

8394. (*Sir T. Farrer.*) It has not raised the exchange?—The exchange has fallen; it is lower than ever it was, even during the Crimean War.

8395. (*Mr. Barbour.*) But is it lower with reference to silver?—Yes, the paper rouble is down to 21.

8396. Yes, but when you are speaking of the par being 36–37, that was when silver was at 15½ to 1?—Oh, that would not make the difference between 36 and 21.

8397. But, if you take off 25 per cent. or so, for the difference in value between silver and gold?—Nothing like it.

8398. (*Mr. Chaplin.*) May I go back for a moment on a question I wanted cleared up, the question between Russia and India which Mr. Barbour raised. You told me that the depreciation was even greater in the rouble than in the silver?—The depreciation of the paper rouble as against silver is greater than the depreciation of silver itself as against gold.

8399. And the greater the depreciation, the more the exchange, I understand you, is in favour of the exporter?—I should say so.

8400. Then, how do you account for the fact that while the wheat imports from India are steadily increasing according to all the returns, the wheat imports from Russia have been very largely falling off?—Excuse me, I do not agree with that statement. The imports this year from India are going to be very much less I am told.

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8401. Well, but let us take the returns we have got?—I have got here the returns from India—

1882 -	8,461,000 cwt.
1883 -	11,248,000 "
1884 -	7,980,000 "
1885 -	12,170,000 "
1886 -	11,023,000 "

for 10 months to 31st October 1887, 7,647,000; there is a great falling off.

8402. Yes, but it does not compare at all with the falling off in the wheat coming from Russia?—We come back to the old story about Russia, about the facts. I certainly have heard that the amount coming from Russia is expected to be very large indeed.

8403-5. Well, I must call your attention to the official figures which are published. For the first 10 months of 1885 the returns from Russia were 3,521,000*l.* in value; for the first 10 months in 1886 they were 1,229,000*l.* in value; for the first 10 months of the present year they are given at 983,000*l.*?—I am told that the returns to October are no criterion as regards Russian wheat. The new crop has hardly come forward so early, owing to the ports being closed; but it is known in the trade what amount is coming forward in the spring, and that affects the market now almost as much as if it was here. I understand that the quantity coming forward next year is enormous.

8406. (*Mr. Montagu.*) Did you suggest that wholesale prices in Russia had not increased in paper?—What I spoke of was the ordinary price of the necessities of life as used by the ordinary people, and I am told by the Russian merchants that practically they are unchanged. I asked, for instance, had wages risen, and he said, "No, they have not risen for many years in Russia." Now, I think wages would be affected immediately, if there was any considerable rise in the price of necessities, at least wages ought to be so affected.

8407. Has not the depreciation of the rouble been for many years about the same price in the country?—Since 1876 it has been 25, 22.

8408. When was it 22, before the present year?—In 1878.

8409. (*Mr. Barbour.*) If you assume that it was gold that was rising in value, and that gold wages had fallen, or would fall, would you not get rid of the difficulty in that way? Because, if you assume that the rouble has fallen, you may expect wages to rise; but, on the other hand, if you assume that gold has risen, then you would expect rouble wages to remain the same and gold wages to fall?—It seems to me the more you look into the figures with regard to Russia, what you see is this, a great change in the supply of articles, and a great change, therefore, in the export, and a remarkable stagnation. With regard to the condition of the country, very little change indeed; but a vast change in the commercial export, resulting, as I understand it, from the immense change which the seasons produce.

8410. (*Chairman.*) Certainly, your figures would tend to show that the rouble could hardly be described as steadily falling in correspondence with the appreciation of gold, because, if you take 28, 24, 22, and up to 25 again, there are no suggested changes of gold with regard to appreciation or depreciation to parallel those?—No, no relation at all that I could see.

8411. (*Mr. Barbour.*) Is it not possible that the change might be at one time depreciation of the rouble, and at another appreciation of gold? Treating the matter from a purely theoretical point of view, might not the divergence at one time be due to depreciation of the rouble, and at another time, to an appreciation of gold, while the effect on the exchange would be the same in both cases?—Well, theoretically, I suppose it is conceivable, but I do not think there is any evidence that it is so.

8412. (*Sir John Lubbock.*) Surely the value of the rouble is greatly dependent on political circumstances, and the probability of further issues, is it not?—To

some extent, no doubt, it would be dependent upon political circumstances, but I do not know that anything extraordinary has happened within the last three or four years. In 1877, which was the time of the Turkish war, the rouble was 25, and it is now 21.

8413. I do not at all intend to deny this. But I wish to know whether it is one of the causes in your opinion?—I am not putting it too high. I cannot see the relation between the rouble and the exports of produce from Russia, but I think the condition of Russia and Chili and those other countries, does tend to show that it is very dangerous to put too much upon the question of the amount of money in that country as affecting the price of articles in the ordinary course of life. I think it is an illustration of the point which I made when I was first examined.

8414. (*Chairman.*) Supposing that a bi-metallic arrangement were arrived at, do you think there would be a danger of disturbance, if the supply of silver should be increased more rapidly than that of gold?—Yes, I have thought so. I have been a good deal affected, I must say, by the strong expressions used by Mr. Giffen, by Mr. Marshall, and by Mr. Norman on this point. It seems to me, that if silver was to be in very largely increased supply, it might happen that gold mining might be discouraged, and if the mining of silver should become exceedingly profitable from the increased value given it by this new arrangement, we might have such an excessive supply as practically to bring silver to be the metal which stops at home, and gold the metal which goes away. But there is more than that in it, I think. I hesitate very much to speak of Indian matters, not having lived in India, but it seems to me that it is notorious that there is a very large supply of silver hoarded in India, besides what circulates amongst the people. It is also stated, and I believe on good authority, that a very large amount of gold is hoarded in India, and Mr. Daniell says, in his book on "Discarded Silver," that the people prefer to hoard gold to hoarding silver, and certain it is that in 30 years we have sent 100,000,000*l.* of gold to India. I think it is very probable that if we give this very high price for silver, higher than is now the ratio between silver and gold in the Bazaars in India, as Mr. Daniell says, they would send over enormous quantities of silver here, to get gold to put into their hoards, and we might suddenly find ourselves denuded entirely of gold and going back on silver mono metallism; that is to say, that our needs would be supported only by silver bullion, and not gold. I am not prepared to say that that would be a good thing. I do not think any English merchant would like the look of it. But what Mr. Marshall, and Mr. Giffen, and Mr. Norman laid stress upon, as I understand it, is, that the profit on silver mining would be far greater than that of gold, were the proposed change made, and the result equally might be that a great flood of silver might come, so that silver being of over value would be retained, and gold would go out as merchandise. That is a speculative idea, no doubt; and that fear about India may be said to be speculative, but it is just one of those things we have to consider when we discuss the probable results of what we are about. I myself should look upon having silver monometallism as a very serious thing indeed in this country, and I will give another reason. The trouble of my commercial life has been the delicacy of the credit of the nation. We pile up credit on a very small basis of actual money. That is the system of the country. It used to be said in Lombard Street, that any man who went to bed with 10,000*l.* unlent was a fool, and I do not know whether that would not apply to everybody—I do not mean to bankers, but to anyone who was not a banker. It means that we are in the habit of using up all our money; and the whole system of our credit is to have very little money excepting what is floating in the pockets of the Queen's subjects, and to have a very high and developed system of credit. Anything, therefore, which would affect that

credit would be a most serious thing for the country, and if we found our gold rapidly passing away from us, although we had silver instead of it, I am not at all sure that the mercantile position of the country would be equally stable and comfortable. You may say that I am only agitating doubts and fears, and that they are not very precise. I admit that; but I am bound to say what strikes me, and to leave the result for your consideration.

8415. Is your view influenced by the fluctuations between gold and silver in France prior to 1873?—It has been in the way that I have already indicated. I remember the time when travelling in France as a boy, I could not get any gold without paying dearly for it. I have travelled in France since, when I could hardly get any silver; and I believe it is notorious that France was, before the celebrated gold discoveries, comparatively very short of gold, and very full of silver, and since that time she has been very full of gold and very short of silver. It may be said that she retained her position as a mercantile country notwithstanding that, and so she did; but her position and ours are totally different. Her credit system is a mere nothing compared to ours. The whole system is totally different. They never have panics in France, unless it be Stock Exchange panics. They do not know what a Commercial panic is in France, because one may say that no man trusts another by comparison. Baron Rothschild told me once that buying and selling bills of exchange, which is a vast business in London, was practically a thing unknown in Paris, except as regards, of course, bills drawn on foreign countries.

8416. (*Sir John Lubbock.*) And that agio first on gold and then on silver was, you think, an inconvenience to the country?—I should say it would be, but I do not want to say how far the inconvenience would go, but I fear that as regards our own country, with our position, and the condition of our country commercially we might be seriously affected if it were felt that we were going to be without gold at all.

8417. (*Chairman.*) Did the agio arise except in connexion with the desire for the metal for purposes outside the country; for export, I mean?—I do not know; I am not prepared to say how far that is so. Of course it is a mere nothing what happens to a traveller; it is only an indication of the state of things.

8418. (*Mr. Barbour.*) Have you ever heard of an agio on gold in any part of England. That a man had, not recently but in former years, in a remote part of the country, to pay something extra to get the particular kind of money that he wanted?—I never heard of it; it might be so.

8419. (*Mr. Birch.*) With regard to the premium on gold, have you read Baron Rothschild's evidence before the Committee on the Bank Charter Act of 1832?—I do not remember.

8420. (*Chairman.*) Supposing the relative value of gold and silver were fixed at the suggested ratio of $15\frac{1}{2}$ to 1, what do you think would be the effect?—Well, I have alluded to what I think might be one result, that there might be a very large export of silver from the East and a great loss, but I should like to refer to what Mr. Westgarth has said. He is considered to be a very intelligent and active bi-metallist, and he says, in a paper which he has issued, and which has been sent to me: "To re-open the bi-metallic mints at so great and sudden a rise in silver value as $15\frac{1}{2}$ to 1 gold from the current ratio of 19 (it is more than that now) would at once direct into these mints a tide of silver from every part of the silver-holding world, thereby loading the bi-metallic currencies with silver to be relieved only by proportionate demonetisation of their gold. Although this effect might be unimportant under any wide and general international bi-metallic agreement, it must once more severely strain the hitherto limited Convention as the practical effects would probably be not unlike those of the great German operation." Now, I mention

that as the opinion of one who seems to take a great interest in this question and has written a great deal about it; and Mr. Gibbs, on the other hand, seems to think that to restore $15\frac{1}{2}$ to 1 is the only thing that is of any use; and as I said just now, M. Cernuschi seems to think that any ratio might do.

8421. (*Mr. Chaplin.*) Have you read his pamphlet on $15\frac{1}{2}$ to 1?—Yes, I have.

8422. Does not he call it an actual necessity?—I have quoted him as regards 10 or 20. Mr. Gibbs speaks very strongly at pages 26 and 27 in favour of the $15\frac{1}{2}$ to 1 being restored; and, as I understand it, that would be essential for the benefit of the Indian Government. What I mean to say is this, so far as you make it permanently less than $15\frac{1}{2}$ to 1, you would thereby make the loss of the Indian Government permanent. I am very much puzzled. Even supposing I were a bi-metallist, I should be exceedingly puzzled to know what ratio I would adopt.

8423. (*Mr. Barbour.*) But with regard to that influx of silver, you are supposing that the ratio of $15\frac{1}{2}$ to 1 was suddenly adopted?—Of course we must.

8424. If it could be done gradually, say in 50 years, do you think the effects would be so very serious?—I think that would do very little good to anybody. We should all be dead and gone; it would not help us, and I think it would be a very serious thing. If it is so very beneficial we ought to have it done as rapidly as possible.

8425. (*Chairman.*) Now, supposing, instead of the $15\frac{1}{2}$ to 1 the market ratio at a given time were taken?—That is what Mr. Gibbs objects to so very much. He says that he thinks it would cause such a very serious loss.

8426. Yes, but do you agree that it would?—I think it would be a very serious thing for the Indian Government to fix 20 to 1 by Act of Parliament or arrangement. According to that the Indian Government loss would be a permanent loss, and the loss to the officials also would be a permanent loss. Now, it would not be so if silver were to rise again from the natural course of events. I only mention here that it is the opinion of very high authorities that this is what is going on, and that silver is going to rise, and that gold, relatively to silver, will fall; that is to say, that the mining of gold is going to overtake the mining of silver. That is Mr. Atkinson's strong opinion, and he bases it in his last paper from information from high-class people in America. And I confess that personally, although I admit the force of what Mr. Giffen and Mr. Marshall have said, it would not surprise me at all to see gold overtake silver; that is to say, that the mines of gold would become more productive than the mines of silver, so that you would have a restoration of the rupee without entering upon any agreement with anybody. Of course that is pure speculation; no man's opinion is probably worth a halfpenny about it either way, but I think the one is just as likely as the other.

8427. (*Mr. Chaplin.*) Supposing that silver in the natural course of events rose again to its old value, would that be advantageous or desirable, in your opinion?—I would not ask any question about it, I would take it.

8428. Would you like to see it; would it be an advantage?—It would be an advantage to some people; it would be a very great advantage to me.

8429. To the general community?—That, I think, it is very difficult to say. If it raised the price of corn. I think it would not. I think it would not raise the price of corn, because we should get plenty or supply.

8430. At all events, you see no objection to it?—I see no objection to it if it comes by nature. I see all the objection in the world to it if it comes by Act of Parliament. That raises a point that I want to mention. I think the loss that we get now, whatever it is, comes to various people not by the act of the Government, but by the act of the natural forces of the world and of nature.

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8431. You would see no objection to the restoration of 1 to 15½ if it were done by foreign Powers, without reference to England; would you put that under the category of natural events?—I should have nothing to say to it. If they choose to call it 15½ to 1, I am not quite sure that I would not be well pleased.

8432. The objection to it is, that it must not come from the act of England touching her standard?—Yes, that is my view. We do not know all the consequences, and some of them I will state presently; and I intensely dislike the idea of this leap in the dark.

8433. (*Chairman.*) To continue your statement of the evils that you think would arise from taking the market ratio. First, you have said that it would perpetuate and stereotype the loss to the Indian Government. Do you think that there would be a danger of our being reduced to a silver monometallism such as you have described?—That is a question of degree. It would be far more profitable to the silver miners to have 15½ to 1 than 20 to 1, and to that extent the 20 to 1 would not specially encourage silver mining as much as 15½ to 1 would. To that extent there would be less danger of the silver monometallism, but I think it is one of those cases where it is impossible to indicate exactly what the effect of the change even to 20 to 1 would be. Then with regard to India, I have indicated practically some of the dangers that I think would arise. If I am right, a fixed ratio would tend to discourage the exports from India, and if it discouraged the exports from India, it would lessen the power of India to purchase from us and lessen the exports from us to India.

8434. (*Mr. Montagu.*) If the ratio were 20 to 1 as the Chairman asked?—Yes, I say whatever that ratio, it would tend that way, not at once, but if other people are right in saying that silver is going lower. Now that is what some people argue. Of course fixing the ratio at 20 to 1 would tend to prevent that fall, and therefore would tend at any rate to take away part of the benefit which the exporter from India now gets.

8435. (*Mr. Barbour.*) Do you think that the fall in silver stimulates both the import and the export trade of India with gold countries?—I do believe the fall in silver has tended to help the exporter from India.

8436. And also increased the imports, because it increases the purchasing power?—No, only in this way. Mr. O'Connor lays great stress upon that point. I think he is quite right; if you increase the export you are sure to increase the import, because goods go against goods, and if you decrease the export you decrease the power of India to buy.

8437. Then you hold that it has increased both the imports and the exports?—I do not know that I can say that off-hand. I will tell you what has happened. I think silver has fallen, and goods have fallen too here, and that that has tended to send both to India, —both goods and silver; that is my view.

8438. (*Chairman.*) If you increased the exports; but the exports fetched no more than they did before; and if goods had not fallen here you would send, of course, a smaller quantity of goods from here than you did before?—Yes.

8439. If goods here have fallen in the same proportion, and exports there have increased, you send a larger quantity of goods from here than before?—Yes.

8440. (*Mr. Chaplin.*) You do not agree then with the gentleman you have so often quoted, M. Cernuschi, that the rupee at 1s. 6d. has the effect of protection against the English merchandise which reaches India, as well as a bounty for the merchandise which is exported from India?—I have said that I believe the fall in silver has had an effect in encouraging the export of produce generally from India, just as Mr. Gibbs has pointed out that it encourages the export of produce from Chili. I have pointed out that the proportionate increase of the imports into India

in five years that I have mentioned in my paper, was greater than the increase of the exports.

8441. (*Chairman.*) Do you mean in value or in quantity?—Value; and I think it is a very curious point. It has been referred to in the "Economist" of last Saturday. It has been argued that the tendency of existing arrangements is to discourage our trade with silver-using countries. I have seen that put very strongly, especially the other day in an address that was made to Mr. Goschen. The figures are very remarkable, and they confirm the view that I have taken as to the way in which our trade has expanded with India, even as regards imports into India from us, notwithstanding the fact that this fall in silver tends to discourage the import from this side to India, almost as much as it encourages the export from India; but the curious thing is, that the export of cotton piece goods has greatly increased between 1872 and 1886 to silver-using countries as against gold-using countries.

8442. (*Mr. Barbour.*) Are these fairly representative years, because I believe in 1886, at any rate, there was a very unusual export of piece goods to India?—I do not know that they are absolutely without objection; I cannot tell you. At any rate, the figures are very remarkable, and they go to show that we keep up our business with silver-using countries. Now, in our exports to Europe generally there is a considerable falling off from 456,000,000 in 1872 to 296,000,000 yards in 1886. The other figures are as follows:

	1886.	1872.
	Yards.	Yards.
Turkey - - - - -	299,706,700	280,964,350
Egypt - - - - -	139,468,700	261,105,740
West Coast of Africa (Foreign) -	37,343,900	22,744,789
United States - - - - -	45,251,200	132,947,936
Foreign West Indies - - - - -	90,238,200	93,320,461
South and Central America - -	611,100,000	493,370,800
China and Hong Kong - - - -	455,823,000	402,079,825
Japan - - - - -	34,628,500	28,447,500
Dutch Possessions in India - -	86,592,400	23,326,350
Phillipine Islands - - - - -	43,214,700	10,785,360
West Coast of Africa (British) -	28,490,100	—
British North America - - -	32,584,700	41,329,605
British West India Islands and Guiana	42,893,000	40,504,797
British Possessions in South Africa -	21,463,800	25,299,893
India - - - - -	2,118,888,200	859,705,200
Straits Settlements - - - - -	103,929,600	101,156,600
Ceylon - - - - -	14,868,200	33,234,700
Australasia - - - - -	96,756,300	45,895,482
Other Countries - - - - -	240,989,400	182,798,738
Total - - - - -	4,850,030,200	3,535,157,600

At any rate, the figures go to show that India and other silver-using countries go on dealing with us on a very large scale, and apparently as large as ever, notwithstanding the fall in the value of silver. I understand one object of the agitation is to raise prices. Well, of course, if we raise prices by what is called monetising silver we should discourage our exports by making them dearer. I think that would be a very natural result. If we make wages and all these things higher in our own country, that would tend to discourage the export to other countries, as we should not be able to work as cheaply.

8443. Would that be the case if you raised wages equally in the other countries too?—But the prices have not risen in India.

8444. Then you think the influence of the standard would be confined to one region?—The argument used in this country is that you have got prices down

very much, and you want to raise them. If you raise them you diminish our power to export to other countries.

8445. Would that be the case if you raised prices in an equal degree in those other countries?—I do not know that you could; the circumstances of each country are so different. In India the prices have not risen in cotton goods; they have gone down very much. Then there is another thing which strikes me about it. If we raise the value of silver we might discourage the export of silver to India. If we discourage the export of silver to India we certainly should lessen the supply of the metal, so if prices depend on the supply of the metal, we should lower prices in India; and if we lower prices in India, the result might be that you would have wheat coming here and competing with our agriculturists as much as ever; and I only mention this as an illustration of the complicated results that might arise which no man can foresee, so that we are bound to be very careful, lest, in order to produce what we think is a good result, we bring in other difficulties very hard to foresee; and generally I cannot help thinking that if the arguments used on this question are correct, we should be injuring India for the sake of benefiting some part of our own people. I may say here that all that I have read seems to show that the fall in silver, so far from injuring the Indian people as a whole, has been beneficial. That was Mr. Cross's opinion very strongly expressed in the speech he made in 1879 in the House of Commons, and I believe he never varied from that opinion; and it was agreed to by Mr. Goschen in the same debate; and I think it would be a very serious thing, as I have said before, for us to do anything which might injure India for the supposed benefit of our own people.

8446. (*Sir John Lubbock.*) Do you maintain that it would be for the benefit of our own people?—I do not see that it would; on the contrary, I think I have argued that we cannot foresee precisely what will occur, and I see no necessity for it, and on the whole I am inclined to think that it would be a dangerous thing for our people. But what I mean is, that it is argued as if we were going to raise certain prices, and thereby help certain classes of our people. But even if we could do it, I say it would be very doubtful whether we ought to do it for the sake of only one part of the empire.

8447. (*Chairman.*) Do you think that a bi-metallic system would add to the stability of the standard?—That is a question of great difficulty. My own impression is, judging from the past, that it is extremely doubtful whether it would be more stable. Of course there is no natural equation, as we have said, between gold and silver. There has been a great preponderance of supply of gold in the last 30 years, and I cannot see what the real relation of value is, and I do not think that anybody has ever shown that there is one. I think if we had two metals we should be liable to disturbance from any sudden change in the supply of one, unless you could absolutely depend upon this compact that is suggested being kept under all circumstances by all; and even if you could so depend, there being such a very large number of countries not in the compact, it seems to me that you might have, as I suggested before, a sudden removal of all your store of one metal, and you would be dependent upon the other metal entirely.

8448. That removal could only take place by reason of hoarding, could it, because you have your existing stock, to which after all the existing supply bears a very small proportion; and, therefore, the diminution of that supply would not be a very serious proportion, so that you could not have any sudden disturbance, could you, of your gold stock, for example?—Well, you use the word sudden; but you might have a rapid export of gold to the East from various causes, either commercial, or for hoarding, or otherwise, and if you did, as I said before, your standard would depend upon silver only.

8449. But there is no motive except that of hoarding, is there, which you would suggest that would bring about that result?—I do not know about that. That change took place in France without hoarding, so far as I know.

8450. Yes, if there are other countries to which it might still flow?—Of course what took place in France in the first instance was an enormous flow to the East; that was a commercial demand for the East.

8451. (*Mr. Barbour.*) Do you mean of silver?—Of silver. I have got the figures here, and you will see that during the years between 1856 and 1861 the flow of silver to the East was enormous, and that was a commercial demand, and also, I suppose, partly a hoarding demand. It was an Oriental demand, and that might arise again, and that makes me fear that the nominal stability would not be so real as it would appear. Of course the argument of the other side would be this, "You have only got silver, but your silver and gold have a special relation, and therefore you may be quite happy. You can issue your notes on the silver as well as the gold; it does not make any difference." But as I said a little while back, I am not at all sure that that would make no difference to us commercially, and that our position as a commercial nation would be as stable, to use your own word, as it now is.

8452. The area from which people, desiring to hoard in India, would draw would be the whole of the nations that were in this bi-metallic union?—Yes, they would be, no doubt.

8453. Would it not take a very long time before they would make a very sensible effect upon the joint stock of gold of all the nations?—Unfortunately our stock of gold is very small. A difference of 10,000,000*l.* would cause a panic during our present arrangements, and I do not know what the effect of taking 10,000,000*l.* would be, even if you had this arrangement. We are become in a sense the centre of the settlement of the commerce of the world from various causes, partly because of our situation, and partly from absence of risk of invasion. But I do not think that is the only reason why we become the centre of settlement. I think one reason is that everybody knows what the pound is; all the world knows what a pound is, and always has known what a pound is; a pound means a certain weight of gold. Now it is proposed to say that a pound either means a certain weight of gold or a certain weight of silver, not at the option of the creditor, but at the option of the payer.

8454. You do not mean to say that a pound in England has been always a certain weight of gold?—It has since 1816.

8455. But that is not always?—It has been during the period of our great commercial development.

8456. (*Mr. Montagu.*) No doubt that permanence has arisen partly from the follies of other people. Other countries have become more powerful in a monetary sense than they were because they have lived more at peace?—There is less danger than there was of disturbance, though we are frightened with a possible war about every three months. But still one cause of our position has been, I think, the mode of payment of our debts. Mr. Raphael said in his evidence that he did not think much of it, but that the important point was that we were secure from internal and external disturbance more than any other country in Europe. Well, that is a question of opinion, which is only speculative; but I think, and always have thought, that the fact that we stick to a certain mode of payment, and everybody, for the last 70 years, has known exactly what is meant by a pound, that all bills drawn upon London meant so much gold, has had an influence in confirming our commercial position.

8457. (*Sir John Lubbock.*) And would you not say further, that there might be a fear if we altered once we might alter a second time?—Well, of course, that is quite reasonable. If we once begin altering, as you

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say, no one knows where it will stop. But I do not want to put it too strongly. I say generally that I think it is not only a question of the stability of the standard, but it is a question of the stability of the commercial position of the nation, and I think it is a very serious thing for the Commission to consider.

8458. (*Mr. Chaplin.*) But if a certain weight of gold and a certain weight of silver meant exactly the same thing, and would purchase exactly the same commodities, what difference would it make to anybody, or what harm could it do them?—The difference is this, that there are a good many countries outside this arrangement, and the merchant sometimes wants gold.

8459. (*Mr. Montagu.*) What other countries?—Well, all the silver-using countries. According to M. Cernuschi, there are only to be five countries in the arrangement, and the other countries are to be outside.

8460. There may be none left out?—Well, if you think Russia is to resume specie payments forthwith, you are more sanguine than I am.

8461. (*Mr. Chaplin.*) The link between gold and silver would be established, and though left out, all countries would be equally affected by the arrangement?—All I maintain is this, that I cannot foresee exactly what the result would be of a merchant not being able to get any gold here; that is to say, our having no gold in this country. I do not know; I am not going to prophesy that it would do harm, this way or that way, but I say it is one of those things that I cannot see my way about, and I cannot feel satisfied that the country ought to be put in that position by any arrangement which we may make with other countries, for although you say the value of the stuff which you give whether it is silver or gold is identical, it may not be identical for the purposes of the merchant. Now, you asked me about the stability of the two metals being as great as the stability of one; but what I want to ask you is, if I may ask a question; what is the evidence of the instability of gold, and why should we attempt to introduce a possible instability of a second metal into our measure of value? It is admitted that silver and gold do not maintain always the same relation, and you say, "Oh, we will get rid of that by an agreement." Now that is coming back to the old point that I began with. I greatly doubt whether you can get rid of that difficulty by an agreement, partly because of the inherent objection to creating values of any kind by Act of Parliament or treaty, and partly because I do not believe you can depend on those people keeping to that agreement if it does not suit them, so that I think there is an additional danger from your being liable to the fluctuations of a second metal.

8462. But you cannot give us any reason, I understand, why it should not suit those other people to adhere to the arrangement, or what should induce them to depart from it?—I am not going to prophesy what is going to happen. France gave it up; at least the Latin Union gave it up because Germany took a particular line.

8463. There was a special reason for that?—Well, there might again be something of the same kind. There might be wars, and these countries would not think a bit about John Bull; they would think about themselves.

8464. (*Mr. Barbour.*) But was not the action of Germany influenced by a desire to imitate what England had done during the early part of the century? Are we really not the authors of the change?—I understand the reason why Germany made the change was that her money was in great confusion, and she saw she was to get a great indemnity from France, and she took the opportunity to improve the state of her money. It was not from any theoretic reference to what we have done. I daresay there were some people in Germany, who thought that England's supremacy was because England had a gold measure of value,

8465. (*Chairman.*) It was suggested that Germany may have thought that our commercial supremacy was in some degree due to gold, and therefore they adopted gold. Though that idea was unfounded, still the fact that the idea was entertained would seem rather to support your view as to the dangers that might arise from the change?—Precisely; I entirely agree with that.

8466. (*Mr. Barbour.*) And that would be the case unless the fact of the superior advantages of the gold standard could be conclusively disproved?—Well, if you could disprove it altogether, then the argument would fall; but I want to know, what is our motive for reverting to this bi-metallic par. If I am right we should be injuring India, and I cannot see the slightest benefit that would come to England in any way or shape. I say we do not want any more money. We have too much money; we have got a standard which has proved itself, certainly, more stable, than the silver standard has been, and I do not know why we should be asked, because of inconvenience that comes to other countries, to enter on this arrangement. If I thought that the great mass of the people of India were injured seriously, and that we should restore their prosperity by this arrangement I should think differently about it; but I do not believe it. I believe the great mass of the people of India are benefited rather than injured by the present condition of things.

8467. But whether there is sufficient ground for the change or not, I suppose you would not dispute that the constant fluctuations in the relation between the silver and gold causing fluctuations in the value of the rupee are objectionable, and a source of inconvenience to the Government of India, and probably of political danger?—They are a source of inconvenience to the Government of India. That is perfectly true. I quite admit that; but I will tell you what I think has caused much more trouble to the Government of India, and that is these horrible wars and these probable wars. If you look at the finances of India you will find they are flourishing, and if you did not make annexations, build frontier railways, and make an enormous quantity of productive works out of revenue, the finances of India would be in a very satisfactory condition. The political danger arises from expenses that need not be incurred, or at any rate of very doubtful character, and not merely from exchange.

8468. (*Mr. Chaplin.*) In continuation of what you were saying about India, if it could be shown to you that the mass of the people in this country—the artisans, for instance, and the agricultural labourers—were in a worse condition than they used to be in consequence of this state of things, would that alter your objections also?—Well, I happen to have lived in the West of England all my early life, and all I can say is, that I am so satisfied that the people are far better off than in those days, notwithstanding all the troubles we have had, that it would take a great deal to convince me that they have been injured by cheap bread.

8469. I am not limiting my question at all to cheap bread. I asked the question, because we have had very remarkable evidence here from people intimately connected with the working classes, to the effect that the artisans in particular, as well as the agricultural labourers, are very seriously injured by the existing state of things?—Yes, but they have to prove that the existing state of things is the consequence of the fall in silver.

8470. Well, the question I asked was, presuming that that was proved to your satisfaction, would that alter your objections to the adoption of the bi-metallic system?—No, there is another point about that. If you could prove to me that the single gold standard caused great trouble to large classes of the community, it would be a very serious argument. Still you have to prove that the restoration of the silver to its former value would raise prices and produce demands which would put those right. Now, if I am

right, I am very doubtful about that, because I do not believe the fall in prices so much complained of is due to any want of money.

8471. I am quite aware it is to be proved, but I am asking you, assuming that it was proved to your own satisfaction, would that alter your objection in the case of the people of England, as you say it would do in the case of the people of India?—I say if you could prove to me that the fall in silver had damaged the community at large, and especially the working classes, and that the restoration of silver would improve their position and restore prosperity, of course the argument is at an end.

8472. (*Mr. Birch.*) The difficulties of the Government of India might be largely increased if by an arbitrary Act of our Parliament we raised the silver again to $15\frac{1}{2}$ to 1?—Yes. If the people of India thought that thereby the charge upon them for their taxes, and their land rent was higher than the natural charge was, and that had been done by act of Government to save the Government from a loss, I think it would be a political danger more serious than any trouble arising from the exchange.

8473. (*Chairman.*) But do you think they would feel that at all. Does not the evidence go to show that the rupee in India has not fallen. If a sudden change took place they might ascribe it to the action of the Government?—Quite so. If it was a sudden change that took place, and it was understood that the Government were raising the value of the rupee in order to help themselves, and to help the official class, that might be a serious political danger. Well then, there are two other considerations which seem to me of importance. I am perfectly free to admit that these objections that I have raised have been speculative rather than absolute, and they must be so. But there are two things which seem to me perfectly clear. We should lose, and lose heavily, if this change were adopted. We should not receive gold for the interest of this vast amount of debt which is owing to us all over the world. We should no longer get gold if it suited the payers to send us silver. If that was the cheapest mode of payment they would send us silver. Well, that is a big thing, and more than that, if prices were raised we should, of course, receive less in produce for every pound of interest that we receive from other parts of the world. In both those ways we might be very seriously injured, and being the great creditor nation of the world, that is a thing which ought not to be lost sight of.

8474. (*Mr. Barbour.*) But I think you hold that the change would not raise prices?—I am told that it would. I am arguing that, if it has the effect which is predicted, and which is desired by a great many who take up this question, for I do not believe there would be half the agitation that is going on just now if it had not been for the desire to raise prices.

8475. (*Chairman.*) If it did not raise prices, so that the silver we get would buy as much of everything as the gold that we get, it would not matter to us?—It would not matter to us, of course.

8476. (*Mr. Chaplin.*) You mean as a creditor country?—As a creditor country it is important for us to receive a large amount of gold for commercial purposes, not silver.

8477. (*Mr. Montagu.*) You say they would send us silver?—If it suited them.

8478. Should not we send them back that silver instead of gold?—The satisfaction is that they are our debtors largely.

8479. Is it the case that we are always receiving a balance of gold?—I do not say we are, but it would be possible that those countries that are now sending us gold would send us silver.

8480. And we could, if it suited us, send it back again?—I suppose that it might not be possible in some cases.

8481. Then you would assume that we are constantly increasing our metal reserves?—That is in the case you are referring to. The assumption is that the people are debtors to us, and must send us metals in

some cases. The great bulk of what we receive, of course, we receive as goods. It comes in goods; it does not come in metal; but still if it suited them to send silver at any time, it is very easy to conceive, suppose silver became very plentiful, that it might suit them to send silver when it did not suit us at all to receive it.

8481a. (*Mr. Barbour.*) May I ask what the difficulty would be if a large amount of silver came?—It may be that I am so accustomed to gold that I look on the actual possession of gold as more important than it really is; but not being a merchant, I hesitate to speak too strongly about it. I think, however, that to have a mercantile reserve of gold would be very important to us even if this arrangement were made. There is only one other point that I should like to mention, viz., the danger of inflation and speculation arising from a sudden increase of the amount of nominal money in the country. It is one of those things that it is rather difficult to put clearly, but we do see sometimes such extraordinary excitements when money is extremely abundant in London, that I think the immediate effect of this change might be very serious. It might not be permanent, and, therefore, I do not want to dwell too much upon it; but I think we might have a greater amount of sudden inflations and sudden depressions than we have recently had. Since 1866, as you are aware, notwithstanding a great many oscillations of commerce and violent changes in the commercial world, we have not had a single panic, and we have had a comparatively quiet condition of money matters, and I should be very sorry that anything should be done by changing our currency which could in any way produce a repetition of former disasters.

8481b. You have said in your evidence that in recent years there has been a great cheapening of production and increase of production in the case of certain commodities of which the prices have largely fallen?—Yes, that has been so.

8482. But is it your opinion that no portion of the fall in gold prices in recent years is to be ascribed to the breaking of the par between gold and silver?—Well, I am entirely unable to trace it to that.

8483. You are aware that since that par was broken, gold and silver have altered about 28 per cent. in relative value. That being so, must not the gold and silver prices of articles bought and sold for gold and silver alter in exactly the same proportion?—I do not know that they do quite; because now, for instance, you take the Indian price and the London price, there is not that difference.

8484. But if you allow for the difference in freight at different times, is there not that alteration?—I doubt it very much. I do not think there is anything like that divergence.

8485. Then must it not become extremely profitable to export or import between gold and silver countries. You take advantage of the divergence in buying and in selling, and there is a very great profit?—I have argued that there is a profit in exporting from India to this country.

8486. Supposing that an article is worth 10*l.*, and that at one time 10*l.* are worth 100 rupees, and that at another time 10*l.* are worth 120 rupees, will not the price of that article be at one time 10*l.*, at another time 10*l.*, while measured in rupees its price would be at one time 100 rupees, and at another time 120 rupees?—That is conceivable.

8487. But is it not certain that it would be so in the same markets commercially connected?—I have not worked it out, but I do not think, as matter of fact, it is. I have looked at Mr. O'Connor's minute, and I cannot make that out.

8488. Then you think that there might be a divergence, say, to the extent of 20 per cent. between the value of gold and silver, and that the price of the article, measured in gold and measured in silver, might not vary to anything like that amount?—No, I think not, because prices depend in the country where the price is fixed, so much more upon the supply and

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demand of the article than on any relation between gold and the article.

8489. But if the price of an article was 10*l.* here, and if the exchange fell very much and the gold price remained the same, must not the silver price rise in India?—But it has not done so.

8490. No, because the gold price has fallen?—Both prices have fallen; no doubt they have.

8491. Yes, but the gold price much more than the silver. What would have happened supposing the gold price had not fallen?—I suppose you would have had a larger export from India.

8492. Must not the gold and silver prices of articles bought and sold for gold and silver alter in exactly the same proportion in which gold and silver alter?—I think it is quite possible.

8493. Assuming that the gold and silver price is made in the same market?—Of course these things adjust themselves by a question of profit and loss.

8494. Yes, but supposing the gold and silver price were made in the same market, would there not be in that market a gold price and a silver price; and would they not vary in reference to each other, just as gold and silver varied?—I do not deny that an exporter from India, for instance, takes into account the question of exchange, that is the very thing I have been arguing all along with the other factors, but I do not think it follows that you could lay down a proposition so broadly as you laid it down at first. I cannot answer that question off-hand; I must look into it more minutely. I would not commit myself to that point.

8495. I want to put a hypothetical case to you. Suppose that in 1873 a silver standard had been introduced into Ireland, at the ratio of 15½ to 1, would not the price of agricultural produce in Ireland have escaped a fall of, we will say, 25 per cent.?—No; I doubt it very much.

8496. I assume that Ireland was given a purely silver standard in 1873. My hypothesis is that if you had done that, the prices of Irish agricultural produce measured in silver would have escaped since 1873 a fall of 25 per cent.?—If Ireland had been isolated and was at 15½ to 1 ratio, and that had been maintained, there might have been no fall in wheat when there was a great fall in other places you mean.

8497. What I say is, prices measured in silver in that country would not have fallen so much as they have done by 25 per cent.?—I do not know that that follows, it depends entirely on the supply and demand of the article in my opinion.

8498. But do you mean to say that the silver price might have fallen as much as the gold price, and yet that extraordinary divergence in the relative value of gold and silver occur at the same time?—No, but you are close to England. Of course, if you have got two markets close together like Ireland and England, the prices would be maintained at a certain ratio one to the other, according to the conditions of the country. There is little doubt if wheat is cheap in one country it will go to the other, and so on.

8499. The silver price of Irish agricultural produce would not have fallen by the amount of the divergence between gold and silver?—That may be. I am not at all clear about that. That would depend on the supply and demand, and the harvest.

8500. I am speaking of articles which could be easily exported to England, and the silver prices of those articles, such as cattle and so forth, would have to move with the variation in the relative value of gold. The prices must correspond to the altered value of silver measured with gold, otherwise there would be immense profit to be made somewhere?—The prices would vary, of course, in the two different countries, and if it was cheaper in one country than the other, it would go to the other.

8501. The exchange between the two countries would balance the alteration in price?—If you mean to say you would create a value by Act of Parliament, whatever value you like.

8502. I merely asked you, would it not have been the case, that prices of Irish agricultural produce measured in the standard of Ireland which would then have been silver, would not have fallen so much as they have done by 25 per cent.?—Well, I am not prepared to say off-hand what the effect of that would have been. No doubt in India prices have not fallen as they have fallen here; they have not fallen in silver as they have fallen in gold here. There is no doubt about that, and there is no question that Ireland might have had better prices in silver than she now has in gold.

8503. I do not say that it ought to have been done or that it would have been a good thing. I merely want the admission of what appears to me to be obvious?—You have to take a great many consequences into account before you find out what the result might be.

8504. I am not asking about the result. I dare say it might have been very injurious. I am merely asking you about this particular point connected with prices?—If in two places closely associated, you put one measure of value in one place, another measure of value in another, and the one measure of value falls and the other remains as it was; of course, there must be a great change.

8505. Well, then, seeing that that is the case, is it not pretty evident that under certain circumstances the quantity of money, or the standard, or something connected with the currency, does exercise an influence on prices?—I never said it did not.

8506. And a large influence?—I do not say that the amount of money in a country has no effect upon prices at all, but what I say is this, that it is a minor factor, and that the great cause of the changes in price is the supply and demand of the article.

8507. I quite admit that, but have I not given you an instance under which, under one standard, the prices would have been 25 per cent. higher than under another?—Yes; but you have assumed a different measure of value in two countries, and the measure of value changing in the two countries.

8508. As it actually has done?—Well, as regards India and England.

8509. But prices have altered as between Java and India. Java has got a gold standard?—Yes; there is no doubt whatever that you may have a change in that way when you have two different values in two different parts of the Empire; but that is the very thing that I have been arguing to-day, that the result has been that one part of the country is enabled to send articles here which it could not otherwise have sent.

8510. The only thing I want to bring out is this, that the standard does have an influence, and in certain circumstances a very considerable influence on prices, nothing more than that?—I do not admit that generally. There may be exceptional cases, in which you create peculiar conditions by some special arrangements of law, but speaking generally, I think it would be a profound error to suppose that the great cause of changes of prices is a change in the supply and demand of money.

8511. I merely want to know whether in certain circumstances the money standard does not exercise a certain influence on prices?—I do not say that in no condition of circumstances it does not affect prices. I do not say that. What I am trying to prove is that it would be a great mistake to alter our law with the idea that by altering the law we are going to make a great change in prices. I do not believe it.

8512. I understand from the evidence you have given that you are opposed to any attempt to influence gold prices by making any changes in the standard or currency?—I am opposed to it as at present advised, because I cannot foresee all the consequences, and I fail to see any good result, excepting the possible improvement of the value of silver and the consequent reduction of inconvenience to certain people and to the Government of India. I fail to see any good result, and I think I foresee that there might

be very evil results to our position as a great commercial nation.

8513. And you think that it would be quite useless and very wrong to attempt to counteract the effects that flow from the natural course of trade and industry, by meddling with the standard?—As a rule, I most undoubtedly do. I wish to mention what has occurred to myself in the course of my life. I recollect talking to my father as to what would happen when the sovereign was only worth 10s. I said: "Oh dear me, something must be done to help these poor fundholders." He said: "Nothing at all. Very likely before you are dead it will be all altered." And so it has been. I have lived to see the thing turned the other way; and now we see the sovereign is not only worth a sovereign, but it is said to be worth 30s., if we compare present and former prices, and therefore I should extremely hesitate to alter our currency from any idea that we know exactly what is going to happen to the precious metals. We saw that the enormous discovery of gold had not anything like the effect that Chevalier and Cobden, and many other people prophesied it would have, and I am not going to say that the changes in silver are going to have all these evil consequences.

8514. But would not that great production of gold have had a much more serious effect if there had been no bimetallic country at that time?—I am not sure about that. Mr. Currie has stated that it would have been a very good thing if the trouble had come then instead of now, and I am not sure that it would not have been so. No doubt what occurred at that time was that there was an immense demand for silver in the East, at the very moment when gold was poured into France, and the silver was taken away by that demand, but that was a commercial demand in the East, and so the trouble with regard to silver was deferred; but now we have got that trouble, and we have to meet it in the best way we can.

8515. (*Chairman.*) What was the cause of that exceptional commercial demand at that time in India?—I am speaking of the period between 1856 and 1862. It was the Mutiny, but the Mutiny did not last all the time. The Mutiny was over in 1858. The export of silver in 1856 was 14,000,000*l.*; 1857, 20,000,000*l.*; 1858, 5,000,000*l.*; 1859, 16,000,000*l.*; 1860, 10,000,000*l.*; 1861, 8,000,000*l.*; 1862, 14,000,000*l.*

8516. (*Mr. Barbour.*) You are opposed to meddling with the standard. I suppose you would admit that it should be an object of the Government to secure a good monetary standard?—Yes; the very basis of my argument has been that I think gold is better than two, than a double one.

8517. You think that a good, or what, for want of a better word, we may call a stable monetary standard is a desirable thing?—Undoubtedly it is.

8518. Now in different parts of the British Empire at the present time there are two standards; there is the gold standard and the silver standard, and within the last 14 years they have altered in relative value nearly 28 per cent.?—At different periods.

8519. To the present time they have altered nearly 28 per cent. in relative value. Do you not consider that that indicates a want of stability somewhere?—No doubt there is, but not the act of Government.

8520. But is there not a want of stability somewhere?—Prices in India are very stable.

8521. And in England?—And in England they have fallen very much.

8522. Now, as long as the ratio of 15½ to 1 was maintained, had not England and India practically the same standard for the measurement of value?—No, I do not think they had. They had not the same standard of measurement of value theoretically.

8523. But practically, so long as the two standards moved in harmony?—Practically silver and gold maintained a certain ratio during that time.

8524. And practically it was the same standard?—I do not like to use the words "same standard,"

because it is a different one altogether, and it is obvious that one was liable to fluctuations to which the other was not liable.

8525. Yes, but the same ratio between the two standards was always maintained?—If India had always had a gold standard, she would not have these fluctuations of which you complain.

8526. Could you point to any period before 1873, at which gold was not linked to silver in some country or another?—I do not know that there was any connection between us and the ratio between gold and silver. There was a nominal link.

8527. Was it not a real link?—No, it broke down.

8528. But up to 1873 it was a real link?—It is a very poor sort of link that breaks down the first time there is trouble.

8529. I do not think it was the first time?—I think it would have broken down long before, but for the accident of the Mutiny in India causing a great demand for silver.

8530. I will read you a passage from Mr. Bagehot, written in "The Economist" in September 1876. "The gold price of silver is now like the gold price of tin—left practically for the first time in history without artificial regulation, and free from the manipulation of governments. And it is into the consequences of this that the United States should now inquire, for they have nowhere been fully treated of. The first effect is that to which M. Léon Say drew attention not long ago, in a speech of much ability; the instability of the value of the two metals. In former times, he justly said, that the fluctuations in the relative value of the two metals were few and small, but now they are many and large. Particular causes, no doubt, aggravate that instability at this moment, especially the demonetisation of silver by Germany, and the supposed likelihood of great supplies from Nevada. But, though the instability is aggravated by these causes, it is not created by them, and it will not cease with them. There is no inherent reason why the gold price of silver should be uniform any more than why the gold price of platinum should be the same. The old notion of extreme steadiness is one generated by the practice of governments, and which has ceased when the practice ceased, and will not revive till it revives." Do you agree with that?—I believe that is true. I believe there is no question, as I said in the beginning of my remarks to-day, that the action of the Government created a special demand for silver which would not have existed otherwise.

8531. Since the bimetallic par was broken, have we not experienced certain evils which did not formerly exist?—I do not know what you mean by "evil"; please indicate what you mean.

8532. I would call the fluctuation in the relative value of gold and silver an evil?—Well, I am not at all prepared to say offhand that that is an evil. It is an inconvenience, and it may cause loss to certain people, but it causes gain to others.

8533. But a thing merely causes good to some people and evil to others, that does not make it on the whole a good thing?—What you are asking us to do is to alter the whole of our currency because certain people lose money. It is called an evil, because certain people lose money. I am not prepared to say off-hand that it is an evil. It may cause loss to certain persons, it may cause profit to others; but to say it is an evil involves a very large assumption.

8534. You do not think the instability of gold and silver is a benefit—you would not go so far as that?—No; personally, I should be very glad to see them at one again, but not by the proposals now made.

8535. Now, if by somebody or other the bi-metallic par were restored, would not the whole world practically have the same standard again?—I suppose we should be where we were in 1873.

8536. And would not any inflation or contraction of the currency in any country then be spread over the whole world? For instance, if America issued

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inconvertible notes, and gold were driven out of America, the gold would go to France and other countries, and a portion of the silver would go to silver-using and other countries. That would be the theory?—Well, a curious thing is that during the time previous to 1873, the fluctuations in the money market were far greater than they have been since. As regards prices, I doubt very much whether the result would be permanently great.

8537. But so far as there was any effect, the result of having one standard for the whole world would be to reduce fluctuations of the nature I have indicated, though such reduction might not be of very great benefit?—I am not at all prepared to say that. I am confident that the great cause of the fluctuations in price has been invention, and the reduction of the cost of distribution, and the telegraphic communication of the world; not a question of money.

8538. I do not question that for a moment; but I merely ask you would it not be the case, if you had one standard all over the world, that those fluctuations which come from the standard would be spread over the whole world, and presumably would not be so intense in any one country?—You used a word there which involves the whole question. Now what proportion of fluctuations come from the standard? I think very few.

8539. But did we not discover a little time ago that in certain cases, say, between England with a gold standard and Ireland with a silver standard, there would have been very great divergence in prices?—What I say is, taking the whole world, which you are talking about now, that the fluctuations in prices are mainly caused not by questions of money, and therefore it is a mistake to suppose that by altering the money, you are going to restore stability of prices. I do not believe that.

8540. (*Chairman.*) What I understand you to mean is that even if there are some fluctuations which arise from money they are so small in comparison with the others as to be unimportant?—Not worth considering.

8541. (*Mr. Barbour.*) I suppose you would admit that the standards of the different countries are not in a very satisfactory state?—They are in a very unsatisfactory state; many of them have inconvertible notes which I have been accustomed to look upon with horror.

8542. And others with silver?—I do not object to silver at all. I hope silver will not cease to be used by the vast majority of the world; I have no objection to it.

8543. But you have an objection to seeing it in this country as legal tender?—Yes.

8544. And a great many countries have a large quantity of over-valued silver. France has five franc pieces?—Yes, and she is very much bothered by them.

8545. There is a great deal of silver in America?—Yes, but that is their own fault. That is an illustration of what I object to—the interference with these things by Legislatures. They have bolstered up silver by Act of Congress. The existence of these Bland dollars is a difficulty, and what is Uncle Sam to do with his Bland dollars? Supposing that silver had gone into the markets of the world, and not been piled up in those dollars in America, it would probably have done much less damage.

8546. Do you think the repeal of the Bland Bill, and the sale of those dollars, would have a healthy effect in raising silver?—I never said a word of that kind; I only said this, that I thought that by making a law, and creating dollars in this way, in the end (supposing, for instance, they were to repeal that Act suddenly) they would do a great deal more harm than if they had never coined the dollars at all.

8547. But up to the present time, do you think the additional demand for silver created in that way has actually lowered its value?—I do not think so, but

I think the effect of the uncertainty has a depressing effect on the silver market.

8548. But if it were known that they were going to repeal that law, would that not have a still more depressing effect?—I daresay it might.

8549. I merely want to get this, that things are not now in a satisfactory condition. Perhaps it is impossible to remedy them?—I never alleged that they were.

8550. Is it your opinion that the best plan for America, France, and everybody, is to allow things to drift and settle themselves somehow, or that is it advisable, under certain conditions and certain limitations, to try and do something towards putting them in a better state?—I think that question should be asked of those people who have interfered. We have not interfered; we have stuck to our gold, and steadily had one law for 70 years. I think those people who are continually changing ought to be asked.

8551. But the question affects us, or at any rate it affects the Government of India, and if silver went to 1 to 15½, which might be brought about by foreign nations without us, you say it would be a great injury to the Indian people. Are we to allow matters to drift, or should we try in any way to control them? Would it be worth our while to do anything to obtain a certain control over them?—Well, I have never seen any practical proposal that I could view with satisfaction.

8552. Are you unable yourself to make any proposal?—No, I am not. I have only thought that this might be done. You, as an Indian official, will be able to say whether there is anything in it. I have thought that gold might be coined in India as the sovereign is coined here, not making it in any way legal tender, or giving it any ratio of value, merely coining the gold. I do not know whether that would be of any use to you.

8553. We do that at present, and have done so for at least 50 years?—Why do you not coin a gold sovereign?

8554. Sovereigns are frequently imported?—You have so much gold hoarded in India that you might bring it out in that way.

8555. Is that your suggestion?—I have heard that suggested, and I think it is a very reasonable proposal.

8556. How do you think these currency troubles are going to end? What is to be done? Can you see any way out of the difficulty?—I do not know that it would be wise for me to speculate how things are going to end. The difficulty, I think, is how things are to end if you make silver legal tender here.

8557. We have got before us this difficult question, and merely to raise objections, which may be very good objections, to the course by which it is proposed to remedy the present state of affairs, does not help us towards a good solution though it may prevent us from adopting a bad one?—Looking at things from our own point of view, so far as England is concerned, I do not see what we have got to grumble at. If you could show me that England was being grossly injured by the present state of the law, I should desire to change the law, but I cannot see it.

8558. I will give you one instance in which England is likely to be injured by the present state of affairs, perhaps it is not very important. It is this: if the difficulties of the Government of India continue with regard to this exchange, it is my opinion that that Government within the course of the next year or two will have to put a check on the construction of railways, and I think an opening for the investment of English capital will be lost, and the purchase of railway material from this country to the extent of 2,000,000*l.* or 3,000,000*l.* will be stopped; it may not be a very great matter, but it is an evil which will probably arise owing to the instability of gold and silver?—I never could understand why the Indian Government was so afraid of borrowing money here,

when they can borrow it so cheap, that if they were to put away the difference between the cost of borrowing in silver and the cost of borrowing in gold, the difference with compound interest would pay off the whole of the loan in 60 years.

8559. Of course you do not see why they should be afraid of borrowing, and it is conceivable that they ought not to be afraid of borrowing; I can only tell you as matter of fact that in the present unsettled state of relations between gold and silver they are very much afraid?—I am quite aware, but I think they are over frightened. I was on a committee for five months on this subject. If I recollect rightly Indian sterling three-and-a-halves are now about 102, which shows that her credit is excellent.

8560. I think you said if we had bimetallism we might drop into silver monometallism, and gold would disappear?—I did say that, and I think it is very possible we might.

8561. (*Mr. Chaplin.*) It is one of the dangers you apprehend?—I really do think it a serious danger.

8562. (*Mr. Barbour.*) There is no doubt John Locke was a silver monometallist?—Certainly, and so should I have been if I had been living then.

8563. Supposing that in some extraordinary way all the gold in the world could be suddenly changed into silver, substituting 21 lbs. of silver for 1 lb. of gold, do you think any very serious evils would follow?—I do not know that there would. We would have paper; we must have paper.

8564. There would be no great evil?—I daresay there would not.

8565. And we would get rid of this exchange question altogether?—We would.

8566. And France and Germany, and the other Continental nations, would not hoard one portion of their currency more than the other?—Of course they would not, because they would have only one currency.

8567. And with no gold in the world, nothing but silver, England would maintain her financial supremacy?—It is conceivable.

8568. There would be nothing to injure it?—No, because everybody would know what a pound was, much as they do now.

8569. And we would not be troubled with discussing the standard, and trying to find out whether one standard was depreciating or the other appreciating?—You are making an assumption which gets rid of all those questions.

8570. Now suppose we could restore the fixed ratio between gold and silver, and give the world as much confidence in its permanence as they had before 1873, when Jevons and Cairnes thought gold and silver would never change; would not that secure for us a great many of those advantages to which I have just referred?—You might get some of those advantages; but you might get great difficulties, which I have endeavoured to indicate, as well.

8571. But on the assumption that we successfully establish and maintain the fixed ratio, and gave people confidence in it, we would get a great many of the advantages to which I have referred?—You would get a good many of the advantages, certainly.

The witness withdrew.

Adjourned till Friday.

THIRTY-EIGHTH DAY.

Friday, 25th November 1887.

PRESENT :

THE RIGHT HON. LORD HERSCHELL, the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.
MR. HENRY CHAPLIN, M.P.
SIR T. H. FARRER, Bart.
MR. C. W. FREMANTLE, C.B.

SIR W. H. HOULDSWORTH, Bart., M.P.
SIR JOHN LUBBOCK, Bart., M.P.
MR. S. MONTAGU, M.P., and

MR. GEO. H. MURRAY, *Secretary.*

MR. HERMANN SCHMIDT called and examined.

8572. (*Chairman.*) You carry on business as a discount broker, I believe, in the City of London, and have given considerable attention to questions connected with the depreciation of silver?—Yes.

8573. Do you think that there has been an appreciation of gold of late years?—I believe the purchasing power of gold has increased owing to the fall in the value of silver.

8574. You distinguish that from the suggested appreciation, by reason of the diminished supply of gold, and consequent contraction of the currency?—I prefer to put it that way, because I believe that the fall of prices proceeds from the fall in silver rather than from the contracted use of gold in gold countries.

8575. Now, in your view does the appreciation of gold, which arises from its altered relation to silver, affect gold prices generally, or only some particular gold prices?—It will at first affect those gold prices which depend upon the export of articles from the East; it will then affect those gold prices which represent articles exported to the East. In this way it affects all the commerce carried on between the

East and the West, and gradually alters the value of the standard; and then extends towards other articles in the country.

8576. Let us take first the articles which are produced in silver-using countries. In what way does it affect the gold price of that produce?—Silver prices have remained more or less stationary. The value of the rupee, and the tael, and the dollar in the silver countries has not been affected. It is, therefore, possible to import those articles from the East at lower gold prices, and every article which is exported from the East to the West is capable of being sold in the Western countries at a lower gold price.

8577. That is to say, that the producer, in the East, will get the same number of rupees—which are the same value to him—at a lower gold price?—The producer will get the same number of rupees, but the purchaser in the gold countries will have to pay less gold.

8578. But supposing that the produce in the silver-using country is a produce of the same description as

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is exported from other gold-using countries, would the whole of the prices necessarily come down in the proportion of the depreciated value of silver, without regard to the quantity which comes from the silver-using country, as distinguished from the quantity coming from the gold-using country?—In my opinion it would, because the cheapest supply will regulate the price in the market. If there is wheat offering at 30s. in England, everybody who has wheat to sell has to take that price.

8579. Without any regard to the quantity which it would pay to offer at 30s.?—If the quantity is of sufficient volume. Of course, if it was a very small quantity, then not; but if the quantity is of sufficient volume then the gold prices would have to come down to the level of those prices which are regulated and established by the silver countries.

8580. But surely if it were not remunerative to the other producing countries, who produce much the greatest quantity, to produce at that price, and they refused to sell at that price, if what came from the silver-using country was only a comparatively limited quantity, how could it permanently pull all the prices down?—In this way: The value of the gold standard being affected by the silver country, and by the depreciation of silver, the gold countries are enabled, through the general fall in prices, to sell also cheaper. For instance, America, by the fall in the purchasing power of gold, is enabled to produce wheat now cheaper than she used to do. Nobody thought, some years ago, of America being able to export wheat at the present prices.

8581. But, I do not think I quite understand why the general purchasing power of gold should have gone down in respect of articles not produced in the silver-using country?—Because there are so many produced, and the ramifications are so numerous that gradually the whole range of prices will be affected.

8582. Let me give an illustration of my meaning; take copper, for example; why should the gold price of copper be affected by the depreciation of the silver rupee?—Because copper is produced, and also to some extent consumed, in the East, and the value of labour having fallen, copper can be produced in all gold countries at a cheaper rate. As the price of wheat goes down, as the price of the necessities of life goes down, so also the value of labour has gone down in many instances, and copper can be produced at a cheaper rate. It would, perhaps, not affect copper at first.

8583. Well, take coffee for another illustration?—Well, you cannot take single articles. Of course single articles will rise and fall in value according to the supply and demand of those articles, but the whole range of prices is affected by general considerations.

8584. Whether that is so, is matter of evidence; or do you mean it is matter of abstract reasoning?—When silver began to fall, the articles which were first affected were those articles which were exported from the silver-using countries, wheat, cotton, indigo, tea, jute, and numerous other articles. The next range of articles that were affected were the articles which were consumed in the East. The purchasing power of the silver rupee not having changed, the people in the East did not pay a higher price for these articles, and, therefore, those articles which were produced in the gold-using countries for the use of silver using countries had to go down in price in gold-using countries.

8585. Those are two things; produced, as one sees naturally, according to a change in the relation of the silver to the gold. What I was rather alluding to, and what I do not quite see at present, is why a fall on other articles, which were not affected by those considerations, should have resulted?—They would result from the general alteration in the standard which is brought about in the gold-using countries by the fall of silver. So many articles are interchanged between East and West that they

eventually produce a change in the value of the standard in the West.

8586. I am not quite sure that I understand you. Do you say they produce no change in the value of the standard, except in relation to those articles which are either imported into or exported from the silver-using country?—Oh, these are most of the articles which exist. Very few articles are not either imported into or exported from the silver-using countries. A very large consumption of every article takes place in the silver-using countries; the greater portion of our export trade is with silver-using countries.

8587. Yes, but why should the gold value of exports to other countries, to gold countries, of articles which we also export to a silver-using country be affected, because the consumer in India will give less for the articles which he gets there?—Because in other gold-using countries the value of gold was affected at the same time as the value in England. As wheat went down in England so wheat went down in Australia and America, and, therefore, the purchasing power of gold in other gold countries was affected the same as the purchasing power of gold in England.

8588. Affected, that is to say, as regards the articles which were produced in the silver-using countries?—Yes, as regards these articles, and it generally extends to other articles; you cannot in any country, in my opinion, alter the value of the standard as to a great number of articles without after a time altering the standard with regard to other articles. Of course among themselves several articles may vary according to demand and supply. My theory is quite compatible with the rise in certain articles, because the contention would be that if the general cause had not happened the rise would have been proportionately higher in those articles. The general cause would not affect fluctuations in certain articles, nor would they affect speculation in a certain article.

8589. But your view is that, because the altered relation of silver to gold alters the gold price of articles produced in the silver-using country or exported to the silver-using country, that produces a change in the gold price of all articles?—Certainly, gradually; just as the issue in a paper country of a large number of inconvertible notes will gradually alter all the prices in that country having the inconvertible paper currency, as was evidenced by the United States during the time of the inflation.

8590. But do you put that as a parallel case? The effect which you suggest is produced by the altered relation of gold to silver between two countries and affecting the dealings between those two countries; do you suggest that is a similar case to a country with a paper currency?—Yes, I do, because the fall in prices will affect indirectly the quantity of money in those countries. Supposing a great number of articles in England fell in price directly owing to a monetary cause which also affects gold, certainly gold would be exported from this country, as has been the case, and then owing to the contraction which takes place in the gold indirectly the other articles will be pulled down. Along with that depreciation of silver there has been a considerable decrease in the gold in England, which I do not think is a cause, but is one of the results of the fall in silver. I mean the fall in prices brought about by the depreciation of silver has rendered a certain amount of gold in this country, for the moment, unemployed. Although that gold has left the country we have never had a scarcity of gold in this country, but we have had a continued export of gold from this country. If you take the import and the export of gold and the industrial consumption of gold, you will find that a considerable decrease in the amount of gold in this country has taken place since the year 1876, something like 20,000,000*l.* sterling, which has thus again reacted on the price. It is a double cause.

8591. Would you explain to me, in your view, how that acts upon the prices?—Because so much less gold being in the country, all prices are gradually affected.

8592. But do you mean that prices depend upon the amount of gold at any given time in the particular country?—No, prices are formed internationally in the commerce of the world; and the amount of currency in the world has decreased, because the value of silver has been reduced by about 30 per cent. Taking the whole currency of the world to-day, as expressed in gold, you will find that the half has been reduced by 30 per cent., and that has confirmed the fall in prices.

8593. Do you include in that the silver that is used in France, and in Germany, and the United States?—Not that silver; no, the silver which is used in the East. The silver used in France and the United States has not been directly affected, but indirectly in that way, that it is not as good a bank reserve as gold would be, and therefore the national banks both of France and Germany and the treasury of the United States have been obliged to keep a larger gold reserve than otherwise they would have held, owing to the fact that gold had, so to speak, to stand sentry over silver.

8594. But when you are speaking about the fact of prices being reduced by the diminished value of the currency, you are speaking only of the silver in the silver-using countries, and not that silver which is used as part of the currency in gold-using countries?—No, not of that silver.

8595. So that comes really again very much to the same point that you were first putting before the Commission?—Yes, I only wanted to point out that the first cause should not, in my opinion, be looked for in the scarcity of gold; the first cause, the impetus which has brought about the fall in prices, is the fall in the value of silver in gold, whilst in the silver-using countries silver retained the same purchasing power.

8596. (*Sir T. Farrer.*) How do you think that silver began to lose its purchasing power in the gold-using countries? What was the original cause?—The original cause was, that in Europe, where silver was kept at a certain price in relation to gold, that relation was broken, owing to the governments, which used to coin silver at the certain price, no longer coining the silver.

8597. Then the fall in value was in Europe to begin with, and not in the East?—The fall was in Europe entirely. In the East silver has not fallen at all.

8598. (*Chairman.*) In speaking of prices hitherto, you have been speaking of wholesale prices; but of course the retail prices more or less follow the wholesale prices?—More or less.

8599. With reference to the suggestion that the rise in the purchasing power of gold really represents only a generally cheaper production of commodities owing to better machinery, lower charge of transport, and so on, what have you to say?—I would say that if the rise in the value of gold represents merely the progress of society, so to speak, we should look for the evidence of progress in some tangible form in society, and I fail to see this. If the producing power of man had increased, his well-being in a certain way ought to be furthered and not impeded by that course. I say improvement ought to show itself either in rent or in profit, or in wages in some form or other; the social condition of mankind ought to be improved by that improved method. I look to rent, and I fail to see any evidence that rent has been improved and bettered by the condition of things which has taken place during the last ten years. I look to profits, and I fail to see that profits have been improved by the greater improvement which has taken place in machinery, and one of the effects of it, in my opinion, ought to be an improvement in profits.

8600. And why should that necessarily result in improvement in profits? Supposing there is an im-

provement in machinery, by which you can suddenly very largely increase the amount of your production; does it follow that you will at once find a demand equal to your vastly increased production?—It seems to me that it follows that somewhere the evidence of an improvement of production should show itself, either in rent, or in profit, or in wages.

8601. But why in rent, or profit, or wages? Supposing that you can produce with a smaller number of labourers and more cheaply, a larger amount of cotton yarn, we will say, why should you expect that there should be more profits made?—I say that improved method of production should in some way show improved results; the world ought to be better off; mankind or individuals ought to be better off for the improvement in production.

8602. But it may be that the community would be better off if a larger number of people were making very small profits than if a comparatively limited number were making large profits, yet profits might have gone down instead of risen?—Yes, but the rate of profits would have risen, would it not?

8603. Not necessarily. Surely the community might be better off with a very large number of people making a very small profit than with a very limited number of people making a very large profit?—I should think that if the improved machinery comes in, the rate of profit on capital ought to rise.

8604. May not your improvements be such that you may turn out such a vastly increased amount of the commodity that you may be obliged—for a time, at all events—to take a small price for it, and so your profits would not be greater, in spite of diminished cost of production?—Yes, then it ought to show itself in the better position of the working classes, of the consumer, say, in general. Somewhere the improved method of production ought to show itself in the community.

8605. No doubt if you could improve the production of everything, perhaps that might be so; but I am talking now of a particular commodity; may you not diminish the cost of production, increase the amount that may be produced by a change in your machinery, and, by doing so, diminish the price, although you would produce much more of the commodity?—In former years machinery was constantly improved, and still prices were not diminished, because the improved machinery went towards the social improvement of the whole position of the community. Since this monetary disturbance took place, the social position has not, according to numerous witnesses, been improved, but the result has simply been a result acting on prices.

8606. Yes, but what has been suggested by some is this: that an era of small profits, when the margin is very small, is generally an era of great inventive activity, because people strive to find some means of lessening the cost of production. The very fact that profits are small stimulates improvements in machinery to an extent unknown when business is good, and people are satisfied with the profits they are making; and therefore a very low price tends to keep down prices, if not to further put them down by reason of an increased production?—But I do not find that the production of many articles increases. I find, on the contrary, that, for instance, taking the large field of agriculture, that the production in this country has certainly been curtailed. That has been the result of the low prices. And it is the largest industry even now in England, and in other countries still larger, proportionately.

8607. That is quite true. But taking the chief export to India, which is cotton goods, the production there has very largely increased, has it not?—Not at the same ratio as in former years. I believe the ratio of production has not been accelerated since 1875; the increased ratio of production has only been kept up.

8608. (*Sir W. H. Houldsworth.*) Is not the first result of improved machinery which reduces cost,

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to increase the consumption of the article?—Yes, usually.

8609. And is not the first effect always of a reduction of cost to increase the consumption, and so rather to increase the profit than to diminish it, in the first instance?—That was the view which I intended to convey. Formerly increased production has tended towards improving the position of the community at large. The consuming power of the people became larger, and they absorbed the increased production. At present that phenomenon has not happened; the consuming power of the people has not increased, on the contrary, we complain of over-production. To mean that we restrict the production. In that way we decrease again the labourers who are employed; that is, we decrease still more the consuming powers of the masses. We are moving in a vicious circle; we can go back as much as we like, but we never come to the point, where, under the present circumstances, production is not overtaking consumption.

8610. (*Chairman.*) But take the case of coal, for example; there was a vastly increased production in 1873, 1874, and 1875, which diminished the price very much; but it did not, so far as I know, increase profits. It brought the price still lower and lower, very much to the complaints both of those who were getting the coal and those who were selling it?—Because since 1873 the evidence of increased prosperity, which formerly used to overtake the larger production, has been failing. That is just my contention. If it had been under ordinary circumstances, consumption would have increased, and the larger production would have been absorbed.

8611. But do you really mean, apart from any monetary question, as a universal proposition, that to whatever extent by increased invention you increase the production of any article that that must result in increased profits and not in diminution in prices, because everybody is ready to give the price in spite of the increased production; that increased supply always meets an equivalent increased demand which will keep up the prices to the old level?—I do not say that of any single article; but it is perfectly true if you take a series of articles that an increase of cheaper production will increase and stimulate the demand if it is an article that is at all of large demand; that new users will be found, and that gradually the old relation between demand and supply will be re-established.

8612. That is to say, that prices do not depend upon the relation of supply to demand, that if you increase the supply, the demand will automatically adjust itself?—Gradually.

8613. And so that prices will remain the same?—To some extent.

8614. (*Sir W. H. Houldsworth.*) Is it a fact that reduction of cost increases production?—I did not mean it to apply to any single article. It is like this, that if you take a single article that may fall; but if you take the diminished cost of production for all articles they cannot all fall together.

8615. Why not?—Where will be the diminished cost of the supply of the precious metals, and where will be the increase in the banking facilities which always, so far, has gone along with inventive genius? Why do you not apply the increase in banking facilities in the same way towards them? Along with the increase in invention, we had an increase in the banking facilities.

8616. No doubt, and that is suggested by many as an equivalent for the diminished production of gold?—To a certain extent that is perfectly true.

8617. (*Mr. Montagu.*) Is it not a fact that increased production always lowers the prices first?—In any single article at first it will certainly lower the prices.

8618. What is true of one single article must be true of several single articles?—Well, you may have over-production in a single article, and yet political economy teaches you that there can be no general over-production.

8619. (*Chairman.*) Yes, but the distinction is not between a single article and universal over-production; what is true of one article may, at all events, be true of a great many, without applying to all, may it not?—Oh, that might be.

8620. Now, you say, that if silver undergoes a sudden considerable rise or fall, the same movement will at once communicate itself to a number of other articles. Those are the articles of the description you have alluded to—those exported to us, imported from silver-using countries?—Yes, and you can see the evidence of that every day. If there is an important alteration in silver in the City, you find at once that a considerable number of articles take the same turn.

8621. You have given wheat as the example. Supposing that there had been no change in the value of the rupee within the last 30 years, do you think that wheat would have remained at the same price, notwithstanding the very largely increased production in India and the United States and Canada?—There has been increased consumption also; there is no more wheat produced at the present time in proportion to the consumption than there used to be; but of course seasons vary, and in one year you may have an increased production, but on the whole there is no surplus wheat produced at the present time. It is impossible to answer your question, because it involves so many hypotheses; but, on the broad principle that there is no surplus wheat production, I should say, unless there had been an alteration in the standard, there would have been no fall, except that produced by cheaper transport.

8622. Surely you may have no surplus, that is to say, that people will buy it, because it is cheaper; and so with the cheaper price you may have no surplus left with a very largely increased amount of production; is not that so?—I question the fact whether America would have been able to produce at the present prices, if the value of the gold standard had not been affected.

8623. I did not say at the present price at all. I was wanting to ascertain whether you considered that the entire fall in the price of wheat was due to the alteration in the standard, or whether that merely increased or exaggerated it?—Well, of course, there have been causes, as I say, which would put down prices. There is the question of transport. There has been a real cheapening of transport, which is not, of course, due to the currency question, but as much as is due to the fall in silver, that is to say, the difference between the rupee as it stands now, and as it did stand, that much of the fall in wheat I should attribute to the appreciation of gold.

8624. The fall in the price of wheat has not coincided entirely with the fall in the price of silver. Has there not been, to begin with, a much greater fall in wheat than in silver, and has there not been a considerable fall of wheat in the last two years, when there has been comparatively little fall of silver?—Because every single article independent of the standard is also affected by the supply and demand.

8625. You say, in your memorandum, that in former times the tendency towards lower prices has been counterbalanced more or less by increased currency, and improved methods of credit. What are you referring to there?—Banking facilities. Although the transactions have increased, although the number of commodities have increased, with the same amount of gold, or with a small increase in the amount of gold, every country was able to keep up about the level of prices. There was no alteration in prices originating in the standard; that alteration has only happened since the par between silver and gold has become dislocated.

8626. And that has led to a difficulty in commerce between the gold-using and silver-using countries?—Certainly.

8627. The necessity for insuring against the fluctuation, or of taking the risk of it?—Taking the risk

of it, yes; also that of the insurance, which is really an additional cost of production because it adds to the real cost.

8628. And to the same cause you attribute the absence of a flow of gold capital to the silver-using countries which would otherwise take place?—Yes.

8629. Now, so far as some of these results of the alteration in the par between silver and gold are concerned, you would regard them, as I understand, as temporary?—Some of the results are temporary, but temporary in a very wide sense. It may take a generation to adjust the matter.

8630. You mean, as I understand, that ultimately, when all prices have adjusted themselves to the altered relation, you are just in the same position as you were before?—Ultimately you will be just in the same position as far as commerce goes. But of the liabilities which extend over a number of years, very few will be adjusted, and there is this to be said, that until you have a fixity of silver there can never be a permanent adjustment. Supposing that by some accident, by some revolution, you would adjust all relations of life to the present price of silver, there is no telling that silver may not go down another 5*d.*, and you will have to readjust them again; and supposing you have readjusted them again on the new price, there may be, although there are not likely to be, circumstances that may increase the value of silver. Silver may go up again by some outside events, and then you want another readjustment, and, therefore, although the adjustment will take place ultimately, however long that time may be, it can never be a permanent adjustment until some way or other has been found to fix the value of silver.

8631. Should you have considered the evil the same since 1873 if, owing, suppose, to a diminished production, the price of silver had gone up instead of down?—The theoretical evil would have been the same. In practice, I believe, a fall in purchasing power is not so detrimental to a country as a rise is because the former decreases the burden of debt, whilst the latter increases the burden of debt.

8632. That only affects the people on whom it falls, does it not; it affects one side rather than the other?—Well, that is true enough, but still it is always easier for the creditor to bear a loss than the debtor. That is what I mean. In theory the two evils are exactly alike, but in practice, I believe, it is that the debtor is much less likely to bear an additional burden than the creditor.

8633. What would you regard as the permanent evils arising from the dislocation of the par of exchange?—I think the value of gold is dependent, to a very large extent, on the value of silver. I say the permanent evils consist in the alteration that takes place in the value of the gold standard, and in the value of all contracts which are based upon gold, and the higher the organisation of society the greater the effect, because the more contracts will be outstanding, having a long currency, and that I look upon as a permanent evil.

8634. Of course to some extent that evil is produced by a change of prices however it is caused; only your point is that here it is aggravated by a cause connected with the relation of the standard to some other standard?—That is it.

8635. As regards the silver-using country, supposing it owes a debt payable in gold, this burden is increased by the alteration?—Very much; but practically no more than other gold debts. I think that all gold debts are increased alike, although in the debt of India you see it at once. It has quite as much increased the gold debt of Australia. The real burden of the gold debt of Australia to-day is increased as much as the real burden of the gold debt of India, or almost as much, only in one case the burden is disguised, and in the other case it is evident.

8636. You mean because prices or values generally are reduced?—Prices have fallen. Australia does not, except for a very small portion of the interest

of her debt, export anything but commodities, and as these commodities have fallen in price, she really has to export so many more commodities, and therefore the burden of the debt of the gold country, Australia, has increased as much as has the burden of the gold debt of India.

8637. Well, but would it be so necessarily?—It is so.

8638. Yes, but it would not be so as regards commodities, the cost of production of which has been lessened, would it, because they are so much the cheaper? It is true the country has to export a greater quantity of them, but then they are produced at a lessened cost, which compensates for that?—That is the question; I doubt that. I deny that lower prices are an evidence of cheaper production; they are evidence of appreciation of gold.

8639. But I mean as regards goods, the cost of the production of which has been diminished. The country that has to export more commodities for its debt would not be in any way affected?—Yes, it would all the same, because even supposing the cost of the production of wheat has decreased, still they must export so much more wheat; they must raise so much more wheat. They did not incur the liabilities on the basis of the present cost of production; they incurred the liability on the old cost of production. And therefore if they have to pay the interest at the present rate they lose the difference.

8640. Yes, but supposing the price has fallen because of diminished cost of production, the person who has to give me so much value of a certain article is in precisely the same position as he was before, is he not?—I think not.

8641. He has to give me one hundred pounds worth of goods, and the hundred pounds worth of goods, we will suppose, costs him 100*l.* to produce, and now he can produce twice the quantity for the 100*l.*; he can produce the old quantity for 50*l.*, but he still gives me a hundred pounds worth of goods; how is he any worse off?—Take the case of an Australian colony making a loan here in order to build a harbour. They build that harbour, and the value of gold increases. The harbour is there, the work is done, and still the interest on that loan increases, while the dues on the harbour have been altered. All their money which has been borrowed has been borrowed nominally either to build railways or harbours or some improvement of a permanent character. It is not liquid money out there; it is all put into some permanent thing, and, therefore, as a matter of fact and as a matter of statistics I think you will find that the burden of the gold debt of all countries has increased. This is so where the money was employed productively. Where the money was spent unproductively, things are still worse.

8642. But if they get the same dues, and those dues produce enough to pay the interest with a certain surplus, they will still produce enough to pay the interest with the same surplus, will they not?—The contention is, that they do not get the same dues because the value of everything falls, you see.

8643. You are supposing that because the value of everything has fallen they have to reduce their dues?—Certainly. Take the case of America, there you can see it better. Supposing they had built a railway and borrowed the money here, have not the charges for freight on the railways gone down tremendously in America?

8644. That may be, and yet although the charges have gone down, if there has been a great increase of production of everything, their total receipts may be greater than they were before.

8645. (*Mr. Montagu.*) Is it not also the fact in the illustration you give of Australia that by borrowing at a reduced rate of interest they are more than compensated for any appreciation of gold, and that is the case with most international loans?—Well, of course, where the rate of interest has been reduced, that is another point; but where they have contracted long dated loans then the rate of old contract con-

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tinues; there the difficulty has arisen. Where the old contract has run out and a new contract has been entered into on a different basis, the difficulty does not exist. That I quite admit.

8646. (*Sir T. Farrer.*) Supposing that Australia contracts a debt for 10,000*l.*, and supposing at that time by the expenditure of 10,000*l.* she can produce a certain amount of commodities, and supposing in the course of time, gold remaining the same, by the expenditure of that sum of 10,000*l.*, she can produce twice the quantity of commodities; then by paying twice the quantity of commodities as interest on the debt she is no loser, is she?—She is the loser in this way, that she loses the profit which the transaction involves. It would have been her gain, instead of becoming, as it does now, the gain of the creditor. That is my argument. You may not be an absolute loser, but you are the loser of the profits of the investment which are transferred to another party.

8647. If you pay the creditors the same quantity of gold, and that same quantity of gold will buy the same quantity of commodities, but that same quantity of commodities is not worth as much in the market as it was before, the creditor is the loser, is he not?—If the same quantity of gold buys the same quantity of commodities, I should say the same quantity of commodities was worth the same amount of gold.

8648. The contract being either for a certain quantity of gold or a certain quantity of commodities?—It was for a certain quantity of gold; but my argument is, that if something happened to the standard, the man who contracts for the gold, as most men do, is prejudiced by an appreciation of gold.

8649. (*Mr. Barbour.*) Supposing A and B take loans from somebody, intending to pay the interest and repay the loan by the production of wheat, and supposing, owing to cheaper production of wheat by A, the price of wheat falls to half what it was, he is no worse off than he was before, because he produces double. Is not B much worse off?—Worse off, undoubtedly.

8650. Is it not generally the case as regards production that all articles are not cheapened in production simultaneously to the same extent in all countries, and for every person?—Undoubtedly, and therefore I say that Australia which has not the advantage of the cheapened production which, in a certain sense, India enjoyed is as much prejudiced as India is in that portion of her debt which is a gold debt.

8651. (*Chairman.*) Well, then if you set up prices in the other way you throw the burden on another class of people?—I throw no burden; I take away a burden. The burden is now thrown on the debtor class, and the creditor enjoys an advantage which it was never intended he should enjoy, nor should be given to him.

8652. And which you could only put right now by putting up the prices to some level which you consider the normal level, and which you are to keep in perpetuity or as long as any contract is running; otherwise unless you keep it at that level as long as the contract is running, one party or the other suffers this loss?—Undoubtedly, but I say if exceptional circumstances arise by which the standard is exceptionally altered then in exceptional circumstances I think it is the duty of the Governments to interfere. In the ordinary case Government interference has never been asked for, because everybody felt and saw that the change was owing to ordinary circumstances, and such risk is taken by everybody. But where extraordinary circumstances directly affecting the value of the standard have come into play, there the demand is made.

8653. Of course, your observation would only apply to contracts made prior to 1873?—Not exactly, because the fall in silver had not taken place in 1873 to the level of 1887.

8654. But that which caused it to take place had occurred, and therefore everybody who made their contracts after 1873 made them in the view of the then existing state of things?—Yes, but they never made them in the view of the now existing state of things.

8655. Yes, if they had known what they were about. They did not, because they did not contemplate it; but they knew of the cause which has produced that result; there has been no act done by anybody since the demonetisation of silver in 1873-74?—There has been no Act, but silver has fallen more. Supposing a man made a contract in 1878; he has there made it on a certain purchasing power of gold. That purchasing power has been altered between 1878 and now owing to further fall in silver, and if a man makes a contract to-day, and to-morrow silver goes down 5*d.*, his contract is vitiated the same as were the contracts of 1878 or 1873.

8656. But what right have you to say that the man who entered into a contract in 1878 did not contract on the basis that silver was not going down any lower when all the experience of the past told him it very likely would; why did not he take his chance of going lower or higher?—Because most people told him silver had nothing to do with it, and that is the contention of many people even now. If you had published to the world, "Now be careful, the value of gold depends on the value of silver; every contract you enter into you must take into view, not only the possibility of a rise, but also of a fall in silver," then everybody would have known it; but even to-day they deny there is any connexion.

8657. (*Mr. Barbour.*) Is it not the case that proposals were made for a fixity of value in silver and gold at the ratio of 1 to 15½ before 1878?—They were made in 1878 officially, but before 1878 by certain private writers.

8658. But since 1878 they were made officially, and different strong governments supported these proposals?—Yes, France and America.

8659. And consequently any person who lent gold in 1878 must have known, like the person who borrowed it, that there was a possibility that the Governments might establish this ratio, 1 to 15½. Everybody who enters into contracts now, long contracts in silver and gold, must take into consideration the possibility not only of a fall but of a rise; not a fall or rise brought about by ordinary circumstances, but by Government action?—We are standing now in America before the question which will in a few years at the latest become a burning one, whether the Bland Bill is to be repealed or free coinage of silver to be granted. It will come to one or the other either by ordinary circumstances or Government action. Every contract you enter into now is made on the chance that one or other is to happen. Which value are you to take? Are you to take 1 to 16, which would be the ratio if free coinage of silver were granted, or 1 to 30, which very likely would be the proportion if the Bland Bill were to be suspended. How are you to do it?

8660. I suppose at any rate you would say that either America must go to a silver standard practically or drop the Bland Bill?—I think this will be arrived at either by the action of the law or by the action of the Gresham law.

8661. It is impossible, I suppose, that they could go on coining, say, five million pounds worth of over-valued silver every year?—They issue this year much more. They issue 50,000,000 dollars. They will coin about 32,000,000 of dollars under the Bland Bill, and they have passed a law in the Spring calling in the trade dollars, and recoinage them into subsidiary dollars, which would make probably another 18,000,000 dollars. They actually may put 10,000,000*l.* sterling silver into circulation this year. How long can that go on; there must be some issue one way or the other.

8662. (*Chairman.*) Then I gather, in your view, the only remedy for the evils to which you have

directed attention is the creation of a fixed relation between gold and silver?—Yes, my Lord.

8663. Do you think it practicable?—Undoubtedly.

8664. What ratio do you think it would be practicable at?—Do you mean theoretically practical? You can fix any ratio you like.

8665. Yes, but should you think that it was proper in view of the rights of the different parties to which you have called attention to fix any ratio you please?—Well, the choice would be between the ratio of 1 to 15½ and the present ratio; any ratio which lies between these two extremes would certainly answer the purpose. It remains then for statesmen and legislators to decide which will be the ratio which would suit best all the interests concerned in these transactions.

8666. Do you think that the fixing it at the existing ratio would be as effectual as fixing it at 1 to 15½?—Fixing it at the existing ratio would leave matters about where they are now; it would stereotype the present condition of things which has been brought about by the fall in silver. It would not improve matters; it would not put prices up to any higher level except by the action of credit. For instance, the silver you speak of in Germany and France would become more effective; not so much gold would, therefore, be necessary to keep sentry over the silver, so to speak, and through the action of credit a certain rise of prices would take place, such as can always occur, independent of the precious metals; but the broad level of prices would be undisturbed if you fixed the present ratio.

8667. (*Mr. Barbour.*) There has been a great fall in prices and an alteration in the relative value of gold and silver. Do you think that all gold values or prices and all silver values or prices have adjusted themselves completely to that alteration, or is the adjustment going on? Does it take time for the adjustment to be effected?—The adjustment is going on.

8668. So that if you stereotype the present ratio between gold and silver there would still remain some adjustments to be effected?—There would still remain some adjustments to be effected, such as would otherwise effect themselves in course of time.

8669. But, possibly, if you went back to a slightly higher ratio than the present one, you might prevent those adjustments?—Certainly; and there is another point to which I may draw attention. Supposing you stereotype the present ratio, and there is an extra demand for silver for the East, which possibly may happen either for India or for China—China, of course, is an uncontrollable factor—there would be no large stock of silver to fall back upon unless silver rises to the old ratio of 1 to 15½. There is no available stock of silver at any time in the world to any extent; and if a special demand were to arise, silver, in spite of being fixed at 1 to 18 or 20, would be able to rise to 1 to 15½.

8670. (*Mr. Montagu.*) Would that be the case if America issued its silver under the Bland Bill, and Germany its bar silver both at 20 to 1?—No, not if it happens after these States do that. I only speak of present circumstances. If these States enter into convention, and coin at the new ratio a large number of pieces, of course, there would be the available supply. Under the present circumstances there would be no available supply, and with a ratio of 20 to 1 you would protect yourself against the fall without protecting yourself against the rise of silver.

8671. (*Mr. Barbour.*) I think you said that the gold price of indigo had fallen?—It would be affected by the price of silver.

8672. Have you any knowledge of the indigo trade?—No, no special knowledge.

8673. You said that the fall in gold is due, not so much to the scarcity of gold as to dislocation of the par of exchange between gold and silver?—The first fall in prices would be brought about by the fall in silver and the fall of the commodities in the gold

countries which are imported from the silver countries.

8674. Do you consider that the fact that the silver money on the Continent is not now available for international purposes, and that there are difficulties in the way of getting gold on the Continent, may have had any influence in lowering prices, or keeping down prices?—Only so far as they have to keep a larger amount of gold to watch the silver. If the silver were perfectly available, the superstructure of credit which they could raise on their present bank reserve would be larger.

8675. Do you think it has had an influence?—It has had an influence by not allowing these countries to build such a superstructure of credit on their combined mass of gold and silver as they would under other circumstances be able to do.

8676. In other words, silver and gold have not been so effective as money as they would be if there had been a fixed ratio between gold and silver?—Quite right.

8677. And I suppose the same thing would be the case to a certain extent in America. There is a certain amount of silver there which is practically non-effective as money?—Well, that amount is decreasing. They have been able last year to use that silver owing to the printing of one and two and five dollar silver certificates.

8678. But it has been practically forced into circulation to take the place of the paper, has it not?—I mean in America at present that cause does not act quite so much as it did a year ago, but it may act any day again.

8679. It is not available for international currency?—For international currency you are quite right; I supposed you meant as regards prices.

8680. If it is not available for international purposes, is not its effectiveness to a certain extent impaired?—No, I think not, because you could get as much gold for international purposes as you wanted. There never has been any difficulty in getting gold from America.

8681. Well, there may never have been any actual difficulty, but has there not been the feeling that in case of necessity you could only get a certain amount from America?—Not from America.

8682. But from France?—France has always given the gold at the premium.

8683. And Germany?—Germany is now not quite ready to give gold, but, whenever a great emergency came, they would give gold. When Italy established the gold standard, Germany gave a lot of gold to Italy. They were very eager to give the gold, because they actually placed it at the disposal of the parties who wanted it,—not at the central office at Berlin, but at the frontier, so that the carriage would be less.

8684. (*Mr. Montagu.*) Is that the case within the last few years?—In the last few years they have shown more reluctance to give gold.

8685. Is it not the fact that no banking house there would venture to export gold from Germany on account of pressure put upon them by the Bank?—I know a banking house that exported considerable amounts of gold from Germany within the last three months.

8686. (*Mr. Barbour.*) Did they get the gold from the Bank of Germany?—No, they did not.

8687. I understand you to admit that in some places there is over-valued silver which is not all available for international purposes, and there is some difficulty in getting gold in certain places?—Yes, that is at present the case.

8688. That would, so far as it has any effect upon prices, tend towards keeping them down?—Certainly.

8689. I suppose you are aware that all the silver that has gone to the East,—or a very large proportion,—has been and is being hoarded or made into ornaments?—Certainly.

8690. It is not used as money?—It is not used as money.

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8691. And I suppose if silver is hoarded or made into ornaments, it has not the same influence on prices as if it were made into money?—As far as ornaments, I think, it has an opposite influence; converts money into commodities.

8692. Now do you think that the breaking of the par of exchange between gold and silver has led to a larger export of silver to the East in recent years than would otherwise have been the case?—That is very difficult to say, but I doubt it; because I believe that the export of silver to the East depends on other circumstances besides the actual production. There have been years in which India has not absorbed all the production, and there have been years in which India has absorbed all the production, as well as a certain amount taken from the circulation of Western Europe.

8693. If the par of exchange had been maintained, you think less silver would have gone to the East than has actually gone?—It is very difficult to say. I see no reason why it should not.

8694. You have seen some criticism on the system of index numbers, especially by Mr. Forssell. One of his arguments is the following. He divides the articles over which index numbers are given into groups, and he shows that for each group you get a separate curve, rising in recent years in the case of one curve and falling into the case of another. Have you any remarks to make on Mr. Forssell's argument?—That, I think, the facts will disprove.

8695. (*Chairman.*) Does he not say that there has not been a universal fall in prices?—No, he says, "That hypothesis, therefore, which attempts to attribute the present price fluctuations to a change in the proportion between the respective quantities of gold and commodities, is not only improvable, because it lacks the support of sufficient induction; it is also insufficient, because it cannot simultaneously explain both the falling and the rising prices of commodities; it is finally, also, superfluous, as there are other more complete and more conclusive explanations for a widespread fall in price. Thereby collapses the whole edifice of price-theories, which with so much trouble have been raised upon a frail foundation." He does not say that there has not been a fall in prices; he says it is not provable that it is due to a deficiency of currency. That is all he says. In the course of the book he says there has not been that fall in prices.

8696. I did not understand him to do so, because he accounts for the fall in prices, which he admits in the case of a variety of articles. What I understand him to say is, it has not been universal, and does not apply to all articles which it ought to have done, if there was a common cause applicable to all, namely, the appreciation of the gold, and as regards those articles which have fallen, he can show you or suggest a cause quite apart from the appreciation in gold. That, I understand, to be his argument, whether sound or not.

8697. (*Sir T. Farrer.*) And that it is not fair under those circumstances to draw a general average and say that it shows a general fall in prices.

8698. (*Mr. Barbour.*) The question I wish to ask is this, that Mr. Forssell divides up the articles included in those index numbers into different groups, and shows in the case of each group that you get a different curve as representing the movement in the prices, and I ask if you have any remarks to make with reference to that particular argument?—I should say that the fact that some articles have risen is no proof at all against the theory of the general appreciation of the standard, because in the ordinary course of things over a number of years it is natural that, owing to alterations in supply or demand, certain articles will rise in relation to other articles; therefore, it seems to me much fairer to take the curve given by all the articles rather than the curve given by some articles which have risen, and then compare it with the curve of some other articles which have fallen. I have here the latest number, an October number, of a

German review, which contains a paper on prices not all written with reference to bi-metallism. They have taken the average, the arithmetical mean, they call it, of all the 275 articles which are quoted in Hamburg from 1876 to 1886, taking the prices of 1871 to 1875 as mean or 100, and I see that the fall has been for the period of 1876–1880 to 93, and then it goes on in 1883 to 76, and in 1886 to 66; so, according to these Hamburg prices, taking the whole 275 articles quoted in Hamburg, the fall is even more considerable than that made out by the "Economist."

8699. (*Chairman.*) Yes, but what strikes me about that is, that your mean may be arrived at by taking some great fall in particular articles, while there has been no fall in a great many. Your mean might be produced, I do not say it is in this particular instance, by a great fall in half-a-dozen articles, though the other 260 had remained stationary. That would not be proof of a universal fall or even a general fall?—That is not the case here. If you go into the figures you will find that there are only three articles which have not fallen at all.

8700. What I am suggesting is, for the purpose for which those statistics are arrived at, can it be satisfactory to take the mean?—I think it can, if before taking the mean you find that there is a similar tendency in all the articles. Of course, if you find that the mean is brought about by the fall in one or two articles, and all the others have risen, then I quite admit the mean would not be right; but after looking over and taking a general review of the whole situation before going into the details, if you find the tendency is downward, and only a few articles have risen, then I think it is much more reasonable to say there were special causes to account for the erratic movements of these few articles, and the movement of all the other articles are the movements which indicate the course of prices.

8701. You are aware that there have been attempts, at all events, made to account for the fall in these articles which have fallen?—Yes.

8702. Well, have you seen any attempt made to account for the absence of the fall or rise of those articles which have either remained steady or risen?—The articles which have remained steady or risen; I can give you them all. First, ivory. The natural explanation would be that, owing to the falling off of the elephant supply, the ivory is getting scarce. Gum. I believe there has been a failure in South America of the crop; the trees have not given so much.

8703. During all this time you mean a continuous failure?—I mean during the last ten years. I mean those are all the articles; pepper, ivory, gum, and dried fish.

8704. Cotton; there has been no substantial fall in cotton, has there?—Oh, yes.

8705. Is not American cotton now pretty much at the same price as it was before the American Civil War?—Ah, but I speak for the last 15 years.

8706. Of course, if you begin at the 15 years at 1872, probably the production in America had not recovered altogether from the effects of the war; but why should cotton not have gone down as between now and the time before 1873, say, 1863? We were told by a witness that cotton had not gone down, that it was now much what it was before the American War, that is, before this monetary change. Why should cotton not have gone down?—From 1868 to 1872, cotton is put down at 113; and from 1881 to 1885 at 83.

8707. That includes Indian cotton, no doubt. Indian cotton would be, as you say, affected by this rupee question; therefore, for this purpose you ought to look at American cotton only?—Well, American cotton has gone down the same as Indian cotton.

8708. Well, has it; we were informed to the contrary?—There is always a difference in price between Indian, American, and Egyptian cotton, but they go up and down together in proportion. There is always a difference between the different qualities

of cotton, but they all go together just like wheat. Californian wheat is higher than Indian wheat, but if Indian wheat goes down, then Californian wheat goes down, except if there is a corner in the article which must break down in time, and then the old state of things would be re-established.

8709. (*Mr. Chaplin.*) Then, in the list of 275 articles you have given us, I understand you to say, that the fall has not been brought about by a fall in a few articles, but that practically it is a fair representation of the whole?—That is the result arrived at in this recent review, a study of prices, and written rather against bimetallism; I mean the writer is not in favour of silver remonetisation.

8710. I understand you to say that the appreciation of gold affects the prices, in the first place, of articles that are exported from the East to the West?—Yes.

8711. And then it affects, in the second place, the articles which are exported from the West to the East?—Quite so.

8712. The category of these articles includes, I think you said, the larger number of all the articles that are in existence?—The commerce of the world consists in the interchange of commodities between the East and the West, and there are very few articles which do not enter into that commerce.

8713. And in this way, then, all commerce is deranged, and ultimately, you say, the price of all articles is affected?—Commerce is deranged temporarily. Commerce, of course, always adjusts itself to any basis of prices. Commerce will adjust itself to a paper currency. Commerce will adjust itself very quickly, but the stability of the gold standard is disturbed, the purchasing power of the gold standard is permanently altered.

8714. Some witnesses have suggested to us that the fact of this country having made large foreign investments in gold is a reason why we should not adopt bimetallism, and if we did it would inflict heavy loss on this country; is that your opinion?—Well, there is some reason for that remark, but it is a one-sided remark. The capital of this country is partly employed in silver-using countries, and partly employed in gold-using countries. That portion which is employed in gold-using countries, certainly has enjoyed advantages, which must be termed exceptional, though they have been legal; but that portion which has been employed in silver-using countries has had exceptional disadvantages; and, therefore, although the creditors who own gold obligations would, with bimetallism, forego an advantage which recently they have had, I think the creditors of the whole country will not suffer, the more so as by the very action of the appreciation of gold some of the debtors have become less solvent; some of them had to reduce the rate of interest; others have not done so yet, but owing to the difficulties in which they are placed, they may have to do so one day. Even the gold debt of India is less secure now than it was when the rupee stood higher.

8715. I think you said that the tendency of adopting bimetallism at the ratio of $15\frac{1}{2}$ to 1 would be, undoubtedly, to raise the price of wheat, and the gold price of Indian wheat in this country?—Certainly.

8716. Are you aware that it has been suggested that the only effect of that operation would be to transfer the wheat trade from India to Russia?—Of course, the Russian wheat export is affected by the low value of the rouble; but inasmuch as that rouble is already at the present time depreciated by 40 per cent. in proportion to its par value, whilst the silver is only depreciated, in proportion to gold, by about 24 per cent., Russia enjoys already under her paper currency an additional export bonus, so to speak, of the difference between 40 and 24, that is 16 per cent., and there is nothing at all preventing her to-day from increasing this difference, if she wants to export wheat cheaper. She has simply to lower the value of the rouble, which she could do to-morrow by further issues in order to increase her exports. But the export of wheat from Russia is only one element, and the fall of the value of the rouble has so many counter-

acting disadvantages, that it is generally admitted, that it is far better for a country having a paper currency, for that paper currency to go up than to go down. The same as India, on the whole, has not benefited by the fall of silver, but has rather been hurt.

8717. The depreciation of the rouble, I understand you to say, is greater than the depreciation of the rupee?—By 16 per cent. at present.

8718. The rupee in India retains its original purchasing power, whatever that may have been?—Oh, yes.

8719. But does the rouble do the same thing, and to the same extent?—Well, as long as the rouble depreciated, owing to a further printing of roubles, the rouble, I believe, lost in purchasing power, but lately the fall in the rouble has really been another aspect of the appreciation of gold. I believe, for instance, that if you were to adopt $15\frac{1}{2}$ to 1, and raise the price of wheat, the more logical result would be a rise in the rouble, and not an increase in the export of wheat from Russia. Of course it is impossible to foretell with certainty.

8720. (*Chairman.*) But why should India, when you have made this change to $15\frac{1}{2}$ to 1, continue to rule the market, and why should not Russia then rule the market; why, if the change comes about and Russia rules the market, should it put up the price of the rouble, and not put down the price of wheat?—I will tell you; because Russia will export a certain quantity of wheat, we will say, the same quantity, I will not even say more; for that quantity of wheat they will draw bills on London, and inasmuch as the amount for which these bills are drawn increases with the rise in wheat, there will be more bills on London offered in Russia, *i.e.*, the demand for roubles will increase, and the rouble will rise.

8721. But what I want to arrive at is this; I did not understand from you whether the rouble in Russia still retains its full purchasing power in the same way as the rupee in India?—Not in the same way.

8722. To that extent it would not act in the same way as a bounty to Russia?—To that extent it does not quite; the paper currency is not the same as the silver, because it is well-known that when the United States issued more paper, the consequence was a rise in prices within the States; but lately the lowering of the rouble has not been due to the issue of more roubles, but rather to the general fall in prices.

8723. Why on your view should not Chili regulate the price of wheat, because she has got depreciated silver and depreciated paper currency, and she is a wheat producing country, and does export wheat to England. And we are told that wages are paid without any addition to their amount in those paper dollars. Why should not Chili regulate the market, as you said the cheapest place always would?—Her export would have a certain influence on the price, but I suppose her exports were not sufficient. The export of Chilean wheat is very small.

8724. Must it not depend on the proportion which the production of this silver-using country bears to the general production? I understood you to say that it would always be the cheapest country that would regulate the price?—The price is not regulated by the proportion, it is regulated by the cheapest production, supposing that production is of a certain extent.

8725. (*Mr. Chaplin.*) Supposing the proportion is sufficient to rule the market?—Supposing the whole value is sufficient to rule the market.

8726. Well, the imports of wheat from India are quite sufficient to rule the market?—Undoubtedly; they are the largest next to America. Now they beat Russia.

8727. But the rouble, as I understand you, is depreciated partly from its being paper money, and partly from its being a silver rouble; is that so?—Well, you may put it that way; but they have really now the bi-metallic standard in Russia; that is to say, gold is theoretically a legal tender the

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same as silver, and therefore you might compare the paper also with gold. Of course it makes no difference which you compare it with. If you compare it with silver, it has gone down only to 16 per cent.; if you compare it with gold, it has gone down 40 per cent. It has gone down 16 per cent. to the silver, and an additional 24 per cent. to the gold.

8728. Well, up to the present time, at all events, although Russia enjoys an advantage in the rate of exchange of 40 per cent., whereas India has only, as I think you said, 24, the Russian imports have not exceeded the imports from India, and they are not growing in the same way that the Indian imports are of wheat?—No, they are not growing like that.

8729. And even supposing that the ratio of $15\frac{1}{2}$ to 1 were adopted, you do not agree in the opinion that one effect of that would be to transfer the wheat trade from India to Russia?—It is impossible to say for certain, Sir, but I think it is just as logical and just as correct to argue, that the alteration would be a rise in the rouble. There are people who say that India would lose her wheat trade. Mr. O'Connor argues that she would do nothing of the kind, and the alteration would be a rise in England of the price of wheat. I think Mr. O'Connor is right.

8730. That the same amount of wheat would come to England, but at rather a higher price?—The price would be raised by the rise in silver; that is Mr. O'Connor's argument.

8731. It has been submitted to us by one or two witnesses that the fall in prices can in almost all cases be explained without reference to money. You disagree with that altogether?—Yes.

8732–3. It has also been stated, that the full effect of the inventions of science, of new machinery and cheaper transport, and so forth, have only been felt since 1873. Do you agree with that opinion?—Well, I think that is a statement which has nothing at all to confirm it, because I should think the first effect of the introduction of telegraphy and railways was by far the greatest and the mere extension of the system has had considerably less effect. We have other causes which come into play in 1873. It is these causes, in my opinion, which have brought about the changes that have taken place.

8734. At all events, whether the effect of those inventions has been felt more or not since 1873, it has not been sufficient to account for the great difference in prices as between before 1873 and the present time?—Certainly not.

8735. Are you of opinion that this great fall in prices indicates the general progress of society?—I think not; because if it were progress of society, I should want to see the progress among the general population, and I fail to see it. The progress of society would mean better employment, higher wages, more contentment, and I fail to see that anywhere.

8736. We have had a great deal of evidence given before us to the effect that many classes of the country are suffering extremely at the present time, and among them, the working classes in the North of England in particular; do you believe that that effect is produced by the present state of things?—I should think the present state of things very likely would have that effect, because the present fall in prices does not really mean cheaper production, but it simply means appreciation of the standard. If it meant cheaper production, real cheapness of production, it would have increased the well-being of the different classes.

8737. Have you seen an interesting statement that is just published in the November number of the "Board of Trade Journal," with regard to the great fall in the wages of agricultural labourers in the South of England, in Essex, and Kent in particular, and the very great number of them that are now out of employment?—I have not seen that statement; but I have seen it generally stated in different documents, that the wages of agricultural labourers are being reduced, and that even the number of those that are employed is decreasing, and that seems to me a very

natural effect to follow from the present state of things.

8738. The very first place which I find in the return which heads it is Aylesford, in Kent; and the reduced rate of wages for piece-work is put at 30 to 40 per cent. I believe that is about the character of the return generally, although the reduction is not so great in many of the cases, or nearly so great. But would you be disposed to attribute this reduction in wages and the number of the unemployed to the same cause?—I attribute it to the retrogression of the agricultural industry in this country, which of course employs fewer labourers, and employs those labourers at a smaller wage.

8739. And what do you trace the agricultural depression to?—To the fall in prices, caused, as I believe, by the fall in silver.

8740. (*Chairman.*) Now take the case of cattle. I believe that though wheat has fallen largely, and has been falling since 1873, cattle have only fallen at all considerably quite recently?—Quite recently. Beef has not been affected at first.

8741. That, of course, is not affected directly by any relation between this country and silver-using countries?—No, that is only the after effect; therefore, the more remote the connexion of any article with the export or import from or to silver-using countries, the later the effect will be felt in the price of these articles.

8742. (*Sir T. Farrer.*) Do you not think that it is more likely to be attributable to the increased facilities of transport for cattle, which undoubtedly have taken place in later years, and which did not exist in the earlier years?—To some extent that would be the case, but not to the full extent.

8743. I do not quite understand your view of the origin of this disturbance and difficulty. You say that it was due to what is called, whether correctly or not, the demonetization of silver by the Latin Union and by Germany, that that made the value of silver lower?—The demonetization of silver caused one portion of the demand to be dried up, to be closed, and a demand which always existed at a certain ratio, and from that moment, of course, silver could fluctuate to anything.

8744. But it operated on silver by diminishing the demand?—By diminishing the demand; yes.

8745. And that was a cause which operated in Europe?—In Europe.

8746. Consequently, it made silver cheaper in Europe?—The price of silver in Europe fell.

8747. Then you say silver did not fall in the East as against commodities?—The purchasing power of silver in the East is, I believe, on the whole, stable.

8748. Then if silver has become cheaper than it was as against commodities in Europe, and remains of the same value as against commodities in Asia, why does it not go from Europe to Asia?—There is no silver in London. Where is the silver?

8749. You said that it is cheaper; surely if it is cheaper, it is to be got cheaper?—No, it is not, not the silver that exists as coin. You cannot get an ounce of French silver coin below $15\frac{1}{2}$ to 1; you may even have to pay a premium. I will give you an illustration. When Italy resumed specie payments, the Italian Government contracted with the bankers to supply them with a certain amount of gold for their specie resumption loan, and a certain amount of silver. The contractors of the Government were under the impression, which I believe, on the whole, was a correct one, that it was difficult to get the gold and that it would be exceedingly easy to get the silver, and therefore what did they do? They at first tried to get all the gold in order to complete that part of their contract, and succeeded in getting it. When they had the gold, they wanted the silver, and they found that the silver was not to be had except at a premium, and they also completed a portion of the other part in gold, because they found they could get the gold cheaper than the silver, for the Bank of France asked a premium on the silver.

8750. You say that if there was a demand for silver in India, that is to say, if silver would buy more in India than it would in Europe, silver would not go there. If so, how is it that the value of silver is not the same in India as it is in this country?—The value of silver is the same. In commodities silver does not buy any more in India than in Europe. Silver is cheaper only as regards gold. Gold is appreciated.

8751. Did not all economists prophesy, when silver first fell, that silver would go to India; is not that what Mr. Bagehot said?—Mr. Bagehot said silver would go in increased quantities to the East, and prices in the East would rise.

8752. Why has not that been so?—The railway communication in India opened up very large areas where silver was very little known in commerce, and it is now filtering in and being absorbed in commerce.

8753. That would create a greater demand still in India for silver, would it not?—It should create a greater demand, but what happens is not exactly this. The point that enters here is that India is under an obligation to discharge every year so much gold debt to England; this is an obligation which necessitates the offer of so many rupee drafts, which are equivalent to silver, and those Indian Government rupee bills and other interest notes go to India instead of silver to a large extent every year,—20,000,000*l.* sterling. If it were not for that, I think what Mr. Bagehot prophesied would have happened.

8754. You mean that the council bills have caused the value of silver to fall?—They necessitate an increase in the imports from India, and they check the flow of silver and other things in India. Of everything else as well as silver.

8755. But still that does not answer my question; why, if according to your hypothesis, silver will bring more in London than it will in India, it does not go to India?—It does go to India.

8756. But not to an extent, according to you, to equalise the value in Calcutta and London?—It goes to a large extent.

8757. I perfectly understand that, because a certain quantity of silver does go, and I suppose the silver that does go, goes because it is more valuable in India than in England, that is why the bullion merchant sends it there. Is it not?—I do not think so; I think it only goes because it is the only place where silver can be used. It cannot be used here, so it is sent to the country where it can be consumed.

8758. Why does it not go until its value in commodities is the same in India as in England?—Because it is not there; all the silver that is here goes to India.

8759. All the silver that is here goes to India?—Yes, every farthing of it.

8760. But surely if there were that demand for it in India, its value would be raised in Europe. Well, then, to turn from this point, I gather that you think that the effect of this change has been to transfer a great quantity of production from the west to the east, *e.g.*, the wheat industry, and cotton industry, and so on?—Yes, temporarily, that has been the effect.

8761. But you think, while it has done great harm to Europe and America, it has done no good to India?—No good to India.

8762. That these industries are no good to India?—I do not say that.

8763. That the ryot is no better off for cultivating his wheat?—I do not say that.

8764. And that the Bombay spinner is no better off for spinning his yarn?—The Bombay spinner is better off for spinning his yarn. The ryot is better off for cultivating his wheat, but the people of India are no better off, because *pari passu* with the increase of the cotton mills, and the increase of the agricultural industry, the gold liabilities of the country increased; therefore, the country is no better off as a country, although some individuals are better off as individuals.

8765. Turning from points of detail to the general question, you are aware, I think, that at many previous times in history, people have attributed to alterations in currency great misfortunes and great fluctuations in trade, which subsequent inquiries have shown to be due to quite other causes; and I would ask you, having that in view, whether you think that a mere alteration in the legal value of silver effected by France and Germany is sufficient to change the whole productive and exchanging powers of the world?—I do believe that. I believe it was a measure of such paramount importance which has altered so entirely the relative prices of gold and silver that everything else is a simple corollary to that fact.

8766. (*Sir W. Houldsworth.*) Would you anticipate, if the international arrangement was made, that gold would become less and less the currency, and silver would take its place?—That would depend upon the production of gold.

8767. Yes, but as far as you can judge of the present position of things, I suppose the final effect would be to stimulate production of silver?—I should think not, because the production of silver is not dependent upon its price. If I am right in contending that as the value of silver falls, the value of gold increases, the production of silver in gold countries will not depend upon the price it will fetch. You see silver is either produced in gold countries or in silver countries. You will admit that the production of silver in silver countries will be absolutely independent of the price it will fetch, you admit that proposition? The production of silver in gold countries will, in my opinion, be not immediately, but after some time, independent of its price for this reason; that as the price falls the currency becomes appreciated as a currency, and when it has become appreciated the price of everything falls in the country, and therefore the fall in silver will be compensated for by the increased purchasing power of gold; that, in my opinion, even on economic grounds, even supposing that the production of silver were subject to the same economic laws as the production of any other article, will be sufficient to account for the fact that the production of silver is independent, more or less, of the price it will fetch.

8768. Have you any anticipation that the cost of producing silver will diminish, and is diminishing; it is asserted that the cost of producing silver is decreasing?—I believe the actual cost of producing everything may be said to be decreased by better machinery. That may be the case.

8769. Then would you anticipate that the fall might be owing to gold being used for industrial purposes, or hoarding, or any other cause; would you anticipate that the effect might be that the currency might become silver and gold go?—Well, for the moment we have a very large amount of gold in circulation. It would take centuries to absorb that gold. There may theoretically be a possibility of such an event, owing to the cessation of the production of gold, but if that is the case what would be the position of the gold countries if the production of gold were to cease? Why, surely, we should then be far better off under the bimetallic standard than under the gold standard.

8770. I was only asking what your anticipation was?—Well, of course the production of gold and silver is dependent, more or less, on chance.

8771. Then you would not anticipate that gold would be driven out very quickly?—Where can it be driven to; on the contrary, I believe, to a certain extent hoarded, gold will come out in India. Gold has been hoarded there more for the very reason that the natives see that they hoard an article which possesses all the advantages of silver, and still increases in value. If it ceases to increase in value, the stimulus to hoarding will be taken away.

8772. Then you think the statement by Professor Marshall, that gold will disappear from circulation, is

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not well founded?—I asked him where it would go to, and he said into pencil cases.

8773. (*Mr. Barbour.*) If it did disappear, and you had the single gold standard, that result would be unfortunate; but if you had the bimetallic standard you would have the silver to take the place of gold?—Yes.

8774. (*Mr. Fremantle.*) Do you think silver would be as useful as gold?—Yes.

8775. And as convenient?—More so, because for large payments you do not pay either silver or gold, and for small payments you can divide the silver better than the gold into smaller change. But that is only a minor matter, the finance of small commerce, because after all you will always have some gold. If you were to introduce the bimetallic standard into large countries, the question of the flow of gold and silver would regulate itself to the demand. That country which finds the gold most convenient will have the gold, and that country which finds the silver most convenient will have the silver; there will be no artificial restriction.

8776. (*Mr. Montagu.*) Is not the lower range of discounts during the past few years, partly due to the use of paper against silver by the different Great Powers?—I believe that the lower rate of discount is due to a smaller demand for capital. The rate of discount is really not so much dependent on the quantity of money, as on the capital in the country, and the demand for that capital.

8777. But a very large amount of paper is at present based upon silver held by the banks on the Continent, and by the Treasury in America; and the paper, therefore, making the currencies redundant, would make money cheaper in the same way as gold?—I should not like to put it that way. I think the rate of money, except for temporary purposes, is dependent upon the supply and demand of capital.

8778. When people talk of gold being abundant, they usually mean circulation being abundant?—Yes.

8779. You recommend that bimetallism should be established internationally?—Well, that would be the best. There are very few countries that could establish it by themselves, but I think international bimetallism is by far the best arrangement.

8780. Are you inclined to propose any particular ratio?—I am not prepared to propose any ratio. I think the ratio must be left to statesmen and legislators.

8781. (*Sir John Lubbock.*) I think you said that, in your opinion, the production of silver would not be stimulated by an increase of its value in consequence of bimetallism being adopted?—No.

8782. But do you not think that in most articles the production is stimulated by an increase in the value?—Precious metals are articles which are not produced under the same economic conditions as other articles. If yours were a correct proposition, then I say owing to the fall in the value of silver the production of gold ought to have increased, and the production of silver ought to have fallen, and we have seen just the opposite. As silver has fallen so its production has increased, and in some instances demonstrably in consequence of its fall. There have been mines which gave a certain profit, and in order to keep their men employed they had to mine more silver and to increase the output when silver fell, and the increase in the production of silver is there directly attributable to the fall in its value. We have seen a fall in silver and a rise in production. Why then must a rise in silver be followed by another rise in production?

8783. Did I correctly understand you to say that, in your opinion, there was a surplus of gold in this country which had led to its exportation, and that this affected prices?—What I meant to say was this, that there is a certain relation between the mass of money and the commodities. That relation is not mathematical, but there is a certain relation. Increase the money and you raise the prices; decrease the money and you lower prices; but this relation is not necessarily such that the cause is always the money,

and the effect always the prices. Prices may be acted on first, and then money adjusts itself to the prices.

8784. Then, in your judgment, as compared with, say, 15 years ago, there has been a surplus of gold in this country which has led to its exportation, and that has affected prices?—There has been an exportation of gold without there ever having been an actual scarcity.

8785. (*Chairman.*) I understood you to say, that the exportation would not produce an effect on prices necessarily, because prices were regulated not by the amount in any particular country, but by the general currency in all nations?—Yes, also that.

8786. I do not understand quite the transfer from one country to another?—The transfer has taken place because prices all over the gold countries have fallen, and, therefore, the same mass of gold which existed formerly had to suffice, and the same production of gold which had to furnish supply for only one or two countries, now suffices to do service for a greater number of countries without ever producing an actual scarcity of gold. There never has been a scarcity.

8787. (*Sir John Lubbock.*) At any rate, you consider that there has been an exportation of gold owing to the surplus in this country?—There has been an exportation from this country, but this is a local element in comparison with the general element, the formation of prices, which are formed in the commerce of the world and not in any one particular country.

8788. And that exportation was owing to there being a surplus of gold in this country?—In this country, yes, relatively.

8789. You stated, if I correctly heard you, in answer to another question, that the currency of the whole world has been decreased because silver has been reduced by 30 per cent. of its value?—The value of the total amount of money in the world has certainly decreased, if you look upon it from the gold point of view, because the silver which circulates on its present value has become 24 per cent. depreciated.

8790. When you say it has become 24 per cent. depreciated, do you mean in relation to commodities generally?—No, in relation to gold.

8791. Then, in relation to the commodities of the world, you would not hold that currency has been diminished by 24 per cent. in consequence of the diminution in the value of silver?—In relation to commodities the standard, if looked upon from the gold point of view, has become less and therefore has altered.

8792. But the values of commodities have, in your opinion, become less, have they not?—Exactly, because the mass of money from the point of view of gold is decreased.

8793. But putting gold on one side for a moment altogether, the relation between silver and commodities has not altered materially in view?—The relation between silver and commodities has not altered.

8794. Then, I think you spoke of our adjusting our prices to the fall in silver. Did I correctly understand you to use that expression?—I say, the general range of prices adjusts itself to the fall in silver.

8795. I do not quite understand what you mean by the prices in this country adjusting themselves to the fall in silver?—I mean in gold countries prices go down owing to the influence of the prices of the silver countries. Owing to the fall in silver, the articles from the silver countries can be imported at lower prices, and the articles to silver countries must be exported at lower prices too; therefore, a considerable number of articles are being circulated in the gold countries at lower prices and that cannot happen, without gradually affecting the whole range of prices in those countries.

8796. But then, do you mean that because there is a fall in the price of silver, therefore there would be a corresponding fall in the price of coal?—Yes, certainly,

8797. But you say that the changes in the price of silver are very similar to the movement of other articles?—Yes, because silver is the cause, and the other articles represent the result.

8798. Now, would you kindly explain to me in what way you consider that a fall in the price of silver affects the price of wheat in this country?—Because wheat can be imported into this country at so much less, can be laid down in this country at so much less.

8799. Why?—Because it can be bought in India at the old price, and the old price at the present value of rupees represents so much less gold.

8800. Then you mean, that although the value of silver has altered in the East, the value of the wheat has not altered in the East?—In the East, the value of wheat in silver has not altered any more than the value of any other article in silver. Silver has retained the same purchasing power that it had in the East.

8801. (*Sir T. Farrer.*) Are you sure of that?—Well, that is the evidence of everything.

8802. (*Sir John Lubbock.*) Well, if that is the case, I think you said in answer to Sir Thomas Farrer, that silver did not go from here to the East as much as you would have expected, "because there is no silver here"?—I did not mean to say there is no silver whatever; I meant to say all the silver that comes here goes to the East. There is no permanent stock of silver here; nobody has silver in London.

8803. Then, do you mean that our price here is a nominal price?—It is a nominal price, if you want any more than there is.

8804. If the price is a nominal price, and the price which really affects matters is the price in India, why do you attach so much importance to the price here, which you say is nominal?—I attach importance because the actual transactions that take place between the two countries are based on that price, nominal or real. It is not so much the price of the silver itself, but it is the price of everything that is based on silver. All the Council Bills, for instance. And for them the price is not nominal. You get those Council Bills at those nominal prices.

8805. As regards the wheat grower in India, I quite understand that, so far as his fixed charges are concerned, namely, the rent which he has to pay, and the taxes which he has to pay, those being fixed charges in rupees, are less in consequence of the fall in silver?—Yes.

8806. But do you consider that in growing wheat he has any advantage over and above the diminution in the actual amount of his fixed charges, which remain nominally the same, but are practically lower?—Well, the wages, if they enter, he has the advantage of the depreciation in the currency.

8807. Then you consider it is the alteration in the fixed charges, and assuming that wages remain nominally the same, the alteration in the real weight of the wages?—Yes.

8808. But you would not go beyond that?—Not beyond that.

8809. Now, with reference to the Bland Bill, you expressed the opinion, if I correctly understood you, that America must either suspend the Bland Bill within two years, or else adopt the free coinage of silver?—I do not like to bind myself to any time; I simply say that it is logically and practically impossible for America to go on, in the present condition of things, without one of two events happening. Either they will halt one day, and say, "It is impossible; we are going to the silver basis, we must stop the coinage of the Bland dollars," and then you will have a great tumble in silver; or else they will go on the silver basis, either with their eyes open, by an Act of legislation, or because owing to continued large coinage of silver there will be such a mass of silver in the country that one day there will be a scare, and the gold will be exported. The Gresham law must come into operation in America one day.

8810. I do not want to bind you to two years, but I understood you meant in a comparatively short time?—Well, there are authorities who say five or ten years. It would happen quicker if there was not this increase of American cultivation that retards the day, but it must come one day.

8811. But if you remember that the total amount of silver certificates is 115,000,000 dollars, and that the whole circulation is 1,750,000,000 dollars, do you not think that as the amount of silver certificates is still so small in proportion to the whole, the effect you anticipate may be, even from your point of view, considerably delayed?—Well, the silver altogether is about 350,000,000 in America, it is even, perhaps, 400,000,000 dollars.

8812. Assuming your own figure, namely, 350,000,000 dollars, the total being 1,750,000,000, it has still so small a relation to the whole that the question I asked you was, whether you did not think the effect you anticipated might not be delayed for a considerable time?—It may be delayed, sir, but I dispute the correctness of comparing the silver to the whole circulation. I think the question is to compare the silver with the gold, because, after all, it is on the gold that they will fall back. By your assumption, by comparing the silver to the whole circulation, they could obviate all difficulty by issuing more green-backs, because, the more paper they have, the larger the circulation, and the smaller the proportion of the silver to the whole mass. Do you see my argument?

8813. I am afraid I do not. I should have thought that the more silver certificates they issued, the more notes it would be necessary for them to call in?—That is right enough. But you referred to silver and the whole mass of the circulating medium, and you say, because silver is 350,000,000 and the whole mass of the circulating medium about 1,750,000,000, it is a very small proportion. I say, from that figure of yours, you must deduct everything that is not gold, because, if you include things like green-backs, supposing you increase the silver dollars by 100,000,000, you would simply have to add 500,000,000 of green-backs, and you would have the old proportion again.

8814. You are aware that while the issue of silver dollars, and silver certificates have considerably increased within the last 10 years, on the other hand the circulation of State bank-notes, and National bank-notes, has very largely decreased?—Not so very largely. It is decreasing every year, owing to the calling in of the Funded Debt.

8815. Do you consider that the effect of bi-metallism, would be to raise prices, if the rate of 20 to 1, were adopted?—No, to a certain extent, I told you it would, because credit would be more easily obtained, and become more effectual, but otherwise it would not.

8816. Then you would not anticipate any considerable effect?—No considerable effect if you take the present price of silver as the basis of the ratio.

8817. Did I correctly understand you to say that you consider that the fall in the value of silver enables a silver-using country to sell its wheat to greater advantage here?—At a lower price, I said.

8818. Well then, would a fall in the paper money in a country having a paper circulation affect it?—Not necessarily; I told you if that fall in the paper money is produced by over-issue of paper, by a further issue of paper, the result would be within that paper country a rise of the prices.

8819. And you think that there is a difference between the case of a fall in the value of silver and a fall in the value of the paper circulation?—There might be a difference. The case of the United States, which in recent years is the most prominent instance, is certainly to that effect, for when they issued more green-backs, up went the prices.

8820. You said you thought it was impossible that gold could be driven out by the adoption of bi-metallism; have you considered the very large amount of gold which is used in the arts?—I said it could not be driven out through bi-metallism, but it might be used

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up in the arts. If the production of gold continues to be insufficient, or would become insufficient, no doubt it would be used up in the arts, but that would happen whether you had a bi-metallic or a gold standard; that would be entirely independent of the question of standard, and the practical result would be far less dangerous under the bi-metallic standard than it would be under the gold standard.

8821. You stated that in your judgment the appreciation of gold is the result not of any actual scarcity of that metal as of the effect of the fall in the price of silver on general gold prices?—Yes, I believe that is the case.

8822. You also state that the constant fluctuations between gold and silver have added a new element of difficulty to commerce. I think you are not practically engaged in the commerce with the east yourself?—No, but I have a great deal to do with Indian banks, and I follow their transactions very closely, and it is on that experience that I said it; but I believe it is generally admitted that there is a new element of uncertainty which you either have to take into account yourself or insure against.

8823. And you are aware that evidence has been given before the Commission that, practically, the difficulty can be met very easily?—By insurance; yes, by paying for it. If you pay for it, it is an item of actual increased cost of production, and if you do not pay for it, your transaction becomes a speculation.

8824. (*Sir W. H. Houldsworth.*) Can that insurance be done to an unlimited extent?—I should say yes. There may be circumstances where it cannot be done; for instance, if India were to export a great deal without importing, it cannot be done; but as long as exports to and imports from countries balance, so long can banks step between and balance them. If exports and imports were to exceed even 500,000,000 $\frac{1}{2}$, it is quite possible for the banks to step in and take the risk for a consideration.

8825. Would you confirm the evidence given by some of the witnesses that there was considerable difficulty in the smaller houses engaged in the trade between England and India, in effecting the insurance?—It is a question of credit with small houses, because in those cases the bank takes the risk from each side. It is quite possible for a small house to have a difficulty in getting such credit.

8826. Then, practically, large houses can insure, while smaller houses cannot?—That may happen.

8827. (*Mr. Fremantle.*) Are they not able to insure, or must they insure at a higher rate?—They may not be able to insure at all.

8828. (*Mr. Montagu.*) Do you think that in the event of bimetalism being established on the basis of 20 to 1, which is about 47 $\frac{1}{2}$., that India would send silver here and take gold away?—Why should she; for what purpose?

8829. For hoarding?—I believe the hoarding of gold would be less. There is a stimulus now to the hoarding of gold in India, because the people know it is appreciating, but take away appreciation by fixing the price of gold in India, and they will just as well hoard silver as gold.

8830. (*Sir John Lubbock.*) You said that you considered that silver, on the whole, was more convenient for currency than gold?—I said so, because silver can be more sub-divided for small transactions, it is more convenient.

8831. At present, in this country, anyone who wishes to have silver for small transactions has no difficulty in obtaining it?—Certainly not; I do not say there is any inconvenience at all from the gold standard. I stated that there would be no inconvenience if silver were to become the standard, and I said so because for the small transactions you have already silver now; for the larger payments you will have the same facilities as now to pay them in cheques; and for the medium payments, if you pay them in silver, you will no doubt have notes like the American certificates.

8832. (*Mr. Chaplin.*) You have stated just now that it would be for statesmen and legislators to decide what ratio would best meet the interests involved. I should like to know your opinion as to what that ratio should be, and what ratio, on the whole, would probably be the best and fairest for all those interests?—I should like the ratio somewhere near the American ratio of 1 to 16, personally; but I am not prepared to say this is the best, or that it would best meet the case all round. I think it would, but I do not like to give an opinion upon that. It requires a great many considerations. It certainly would raise prices a great deal, and would make many trades profitable which have ceased to be profitable; but, on the other hand, many liabilities have been incurred since the fall has taken place, and it may hurt other interests.

8833. A ratio of 15 $\frac{1}{2}$ or 16 to 1 would remedy, at all events, the crying injustice which you speak of, and by which I understand you mean the great breaking of contracts which has taken place?—Certainly.

8834. Any other ratio would inflict considerable inconvenience, would it not, upon France and Germany, and those countries where there was a large existing currency in silver?—It may be a practical question, whether the other countries would accept any other ratio except 1 to 16 or 1 to 15 $\frac{1}{2}$; I am not prepared to say that.

8835. It would involve the recoinage of their silver currency?—Gradually. They would open their mints at once to the free coinage of silver on the new basis, but the re-coinage would be done gradually.

8836. In any circumstances you would not wish to see a ratio of 16 to 1 or 15 $\frac{1}{2}$ to 1, which would involve such large changes, adopted suddenly?—Oh, certainly not. I think a sudden and immediate adoption of the ratio of 1 to 15 $\frac{1}{2}$ would create so much disturbance that it is highly to be deprecated.

8837. (*Mr. Montagu.*) Could not France coin a new coin at 20 to 1 without interfering with her present circulation?—I think they have so much at present, that they would have to recoin part of the old stock.

8838. Or would it not answer the same purpose if the banks bought bar silver in the same way as they buy bar gold?—They would do that in any case, I think.

The witness withdrew.

Adjourned till Monday.

THIRTY-NINTH DAY.

Monday, 28th November 1887.

PRESENT:

THE RIGHT HON. LORD HERSCHELL, the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.
MR. J. W. BIRCH.
MR. HENRY CHAPLIN, M.P.
SIR T. H. FARRER, Bart.

MR. C. W. FREMANTLE, C.B.
SIR W. H. HOULDSWORTH, Bart., M.P.
SIR JOHN LUBBOCK, Bart., M.P.
MR. S. MONTAGU, M.P., and

MR. GEO. H. MURRAY, *Secretary*.

LORD BRAMWELL called and examined.

8839. (*Chairman*.) You have devoted some attention to the subjects into which this Commission is inquiring?—Yes, some.

8840. I believe you have read the evidence which has been given before us, so far as it has been published?—Well, I have read it so as to have a notion of what it is. I cannot say I have read it in the scrupulous way in which I should if it had been a brief, perhaps.

8841. But you have read, at all events, sufficient to be acquainted with the views which have been put before the Commission of what bi-metallism is, and how far it is practicable?—I think so.

8842. Now in considering the question of the proposed fixed relation between gold and silver, you may have observed that those who advocate bi-metallism, or some of them, do not propose that the power to contract, even if bi-metallism were established, for payment in one particular precious metal should be excluded?—I see Mr. Gibbs says that particularly.

8843. Does any observation occur to you as to the effect that that might produce with reference to creating or augmenting the premium upon one of the precious metals?—It undoubtedly would have a tendency to do so: if bi-metallism were firmly established and the ratio firmly established, it would be said that there never would be any occasion for a premium upon either of the metals, but it has always, in my mind, an absolute tendency to create a premium upon one of the metals, and upon gold, at least, if the ratio were established at 15½.

8844. A premium, at all events, upon what one may call the dearer metal?—Something of the nature of an agio or a premium; but I think it would have another very mischievous consequence, which I will mention at once, if you please. I think it would tend to create an enormous quantity of confusion and litigation. A man would owe a debt; he would say "Well, I contracted to have the right to pay this 'in either metal,'" and his creditor would say "No, 'you did not, you contracted to pay it in gold,'" or what not. Well, there would be litigation, confusion, quarrels about that. Further it would be a very extraordinary thing that a great quantity of what a man had to pay, his taxes, and other things, which did not arise out of any contract, should be paid at one rate or in one metal, and the other should be paid in an optional rate, as agreed between him and his creditor. I have not the slightest doubt in the world that it would have a tendency to create confusion and litigation, which, I dare say in time, would abate, to a considerable extent, but it would always exist to some extent.

8845. That is in contracts not reduced into writing?—Not reduced into writing. If they were in writing, I suppose they would have a tolerably intelligible meaning; but I should think you and I have seen a good many writings, especially when merchants draw them up, which have not a very intelligible meaning, with all submission be it said.

8846. Now with regard to the possibility of a bi-metallic system which would work; what observations have you to make?—I have come here to do what is called give evidence; but I should like to preface what I have got to say by this, that I have not a fact to lay before you, not one. I have only got opinions to lay before you, and I see round the table, and know there have been called before you, those who are more competent to give good opinions upon the subject than I am; but if you like, if it would save you any trouble, I would just give you, as shortly as I can, my general opinion upon the subject.

8847. If you please?—In the first place I know what bi-metallism is. I have always had some doubt about it till I read the evidence that has been given before you. Of course I knew that it always meant a free coinage; that is to say, an unlimited coinage (I do not mean to say without any charge for it), of the two metals with a fixed ratio between them, and either of them a legal tender. But the thing that I never did know with absolute certainty till Mr. Gibbs mentioned it, was whether persons would be allowed to contract themselves out of the right to pay in either metal; in other words, that they should be allowed to stipulate for payment in one only of the two metals. I incline to think that bi-metallism is a possibility; that is to say, that you might get rid of the Gresham Law if you got a sufficient number of minters, all great states minting largely who would agree to it, but I am not sure even then; I think it might do if you got a sufficient number, but the great difficulty is to say what is a sufficient number. If you got so many that there was no market for either metal in particular, that is to say, no reason why the Gresham Law should apply, why then I suppose bi-metallism might exist and might flourish. But even if you were to get the United States, and France, and Italy, and Germany and England to agree, I am not at all sure that you would not find yourself disappointed by the action of China and India and other countries. But, however, assuming that bi-metallism is a possibility, what occurs to me is, I have no objection to its being considered a lawyer's view of the case, if you like; because as I have said several times, I think lawyers take a better view of a case than any other class of people; but it seems to me that the burden of proof is upon those who say that bi-metallism would be preferable for this country. Now mind, I am not going to say a word of a cosmopolitan character. All other countries may take care of themselves. I think what we ought to do is to take care of this one, and I think that those who say that bi-metallism would be better than mono-metallism for this country have got to make their case. Now I have no particular admiration for what Tristram Shandy calls "the under strapping virtue of content." I think if anything could be done better than we have now, it should be done, and I think if anybody could show it and make it out, it should be adopted; but the burden of proof, to my mind, is upon those who would make a change in that,

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which is undoubtedly, I should say, a preferable condition to that of any other nation; that is to say, our condition is better than that of any other bi-metallic or mono-metallic country in the world, and I say, therefore, that the burden of proof is upon those who would make the change. And I think to begin with, that one may show that there would be a great many disadvantages attendant upon that change. Now the first and most remarkable disadvantage I think that would attend upon it is this:—The bi-metallists tell you, and I think they are right, that bi-metallism,—at all events with a ratio of $15\frac{1}{2}$ of silver to gold (and it seems to be conceded that unless that ratio is agreed to, bi-metallism is an impossibility, and I think good reasons might be given for it) the bi-metallists tell you and it seems to me that if bi-metallism were established with a ratio of $15\frac{1}{2}$ inevitably there must be a depreciation of gold. I think one may say to the bi-metallists “that is your contention, and it is one of your great objects. You wish to reduce the value of gold. You wish to raise prices which can only be done by lowering the value of gold.” Well now it seems to me that that would be attended with a most grievous and cruel injustice, because every creditor would find his debt reduced in proportion to the diminished value of gold, so that in fact if he had a hundred sovereigns owing to him, the purchasing power, if gold fell ten per cent., his hundred sovereigns would only equal what ninety sovereigns were before, and it seems to me that it is no answer to that to say, that if he loses, his debtor would gain because in the first place that seems to me to be merely saying that you will compensate A for an undeserved loss by making B an undeserved gain. And there is another thing, one does not want to go into any metaphysics upon bi-metallism, but I suppose everybody would admit that the pain and grief and inconvenience to a person who loses a particular thing is not compensated for or anything like compensated for by somebody else getting the good and benefit of that thing which he never counted on.

8848. What should you say to the contention that the opposite state of things, the converse state of things has been brought about by the demonetization of silver in 1873, and that it would be only restoring the condition of things which had existed prior to that date?—Well, I should say to that, I think it really is rather surprising to me that anybody could bring it forward; it seems to me as unreasonable as the dying remark of an old barrister. He said, “Well, I have won a great many verdicts that I ought to have lost, but then I have lost a great many that I ought to have won, so upon the whole justice is done.” His notion being that an amount of injustice on one side, was set right by a corresponding amount of injustice on what you may call the other side. It seems to me really with great respect to those who think otherwise, the most unreasonable thing in the world. This demonetization dates from 1873, that is about 14 years ago. People have got used to the present condition of things. How old must a thing be before it is disturbed. What justification is it to a man who has bought a railway debenture, upon which he is entitled to 5*l.* a year in a mono-metallic country to say that “when you were a boy of about 15 some injustice was done to debtors by making them owe more than they did owe”; that is to say, by demonetizing the silver currency. But there is another thing the very question assumes that there is an appreciation of gold. That there is a depreciation of silver I know; but the notion of compensating a man, by taking away from another that which he ought not to have, is founded upon the notion, that that other has got something that he ought not to have; that is to say, that there was an appreciation of gold. With the greatest respect in the world, I extremely doubt that. I have the very greatest misgiving about it; that is one thing. Another thing is this. The demonetization of silver, if gold is appreciated, and is appreciated owing to the demonetization of silver, was a thing that was brought about

by what you may call natural causes. Now it may have been a piece of good fortune to gold creditors. I deny that it was; I do not believe it was, but it may have been. But what right have you to tamper with the currency, for the mere purpose of diminishing the value of the credits which at present exist. I can understand very well that if, for currency purposes, it were desirable to demonetize silver, one might fairly say to any man, who lost money by it, “Why you must have known that the currency would always be managed so as to be the best possible currency.” But if he could say in answer to that, “But that is not your object, you do not want to amend the currency for the currency’s sake, but want to amend the currency for the purpose of lowering the value of gold, because it has appreciated.” It seems to me just as reasonable as if he would give a valid answer they said “We will put 20 per cent. of alloy in the sovereign.”

8849. I understand, that supposing it were thought for currency purposes,—for purposes entirely independent of the alteration of prices—fit to adopt a different currency system, you would not think that unjustifiable, because incidentally it might happen to affect the relation of debtor and creditor?—That is my opinion. I think a man would have no more right to object in that case than he would to the issue of one-pound notes. If it was thought a desirable thing to issue one-pound notes for currency purposes, although it should have the effect—I am not sure whether it would—of lowering the value of the sovereign. I think the man would have no right to object to it.

8850. You have said that you doubt whether there has been that appreciation of gold which has been contended for. Would you favour the Commission with your reasons for expressing that doubt?—Well, in the first place, I may say that it is for those who say that there has been such an appreciation to make it out. I know very well how they attempt to make it out. They attempt to make it out by showing a great fall in price in a great number of articles, and then they say that inasmuch as there is such a vast fall in price in such a great number of articles, the true solution of it is, not a fall in their value, but an appreciation of the purchasing material, that is, say, gold. Now, first of all, I desire to make this general remark about that, that if that were true there ought to be a universal fall in prices; and I deny that there is. With respect to the particular instances that are brought forward, without pretending to go through the whole of them, it seems to me that the immense majority of them have been explained by other causes, and the first and most material of all the causes is, that the immediate produce of land can be placed in this country at a much lower rate than the price existing formerly. I used that word expressly, because it not only can be brought here more cheaply, but it is cheaper in the place from which it is brought than it is here. Take wheat for instance, you need go no further than that. Take cattle, say, coming from America. Formerly I suppose cattle could scarcely be brought to pay from America; the voyage was so long, and possible injury to the cattle; and the amount of the freight was such that they could hardly be brought here, and now they can. They can be brought here, that is to say, they are cheaper in the country from which they come than what they are here, and they can be brought here at a very much less rate than they could formerly be brought here. Well, now, if you take it that the earth’s produce is landed here, so as to be saleable at a much less price than it formerly commanded here, why you have as a consequence not only a fall in the price of those products, but you have a fall in the price of the land which produces them. Well that accounts for a very great many falls in price. Then, in addition to that, you have the falls in price from diminished freights as to foreign goods; and as to things of home production, you have better means of production, better machinery. Well, then you have, owing to tele-

graphs and this speedy communication between different places, the less necessity for keeping a stock than there was before, and there is a variety of other things, which do not at the present moment occur to me, which will account for a great many falls in price. Now I should just like to mention to the Commission one or two things that have occurred to me. I believe the amount of gold and silver plate manufactured has not only not diminished, but has very considerably increased as shown by the duty payable. It may, perhaps, be said that that is because silver plate has been very much increased. I really cannot tell. I really cannot answer that; but it is a fact, I believe, that the duties now payable upon gold and silver plate have risen in amount very considerably. I take such an illustration as this: A pair of carriage horses. Will you get them more cheaply than you could have done in the year 1873? Certainly not. A carriage. Will you get that more cheaply? No. Do you pay less for labour than you did? No. Can you get pianofortes more cheaply than you could? No. Do you pay less to singers and dancers or lawyers? No. Do you find that those people are being paid at a less figure in amount than they were. And if you look—I have not prepared myself with a list or catalogue of them—but I think if you look at those things, where a fall in the price of them could not be accounted for in any of the ways that I have suggested, nor any of the ways that have been suggested. I doubt extremely whether you will find that there is a fall in prices. Take this case: I believe now that in Belgravia, and probably in Mayfair, the price of very large mansions—very expensive things—has gone down. Well, what is it attributable to? I could name a particular case where a tenant had lived for very many years in a great mansion, and I was told that he was leaving because, being a landowner and having his income diminished, perhaps one half, or whatever else it was, he could live there no longer. Well, that accounts for the price of such mansions as those going down; but if you look to smaller houses, such as are occupied, not by landowners, but by lawyers, and merchants, and bankers, and others, you will not find any fall in price. I do not think that the value of land in the city of London has fallen, and I do not think that the value of land in the suburbs has fallen; I do not believe, though I cannot speak with certainty, that such things as pictures, old and new, old china, rare books, have fallen in price; and upon these considerations, and perhaps also because I have read that excellent production of Mr. William Fowler's upon the supposed appreciation of gold, I have the greatest doubt in the world whether there has been an appreciation of gold. That there has been a depreciation of silver everybody must admit, but the other I doubt very much indeed. And I think one may put another thing: if gold has appreciated—I think Mr. Gibbs says it has appreciated 30 per cent., I think he does in one instance—well, according to that, you know, the burden of the National Debt ought to have increased one third, and I do not believe anybody thinks it is or says it is.

8851. You have spoken hitherto of the suggestion of a scheme of bi-metallism at a ratio of $15\frac{1}{2}$ to 1?—Yes.

8852. Some of the objections which you have expressed, as applicable to such a system, would not, as I understand, in your view, be applicable to a system of bi-metallism if the ratio were the existing market ratio?—I should think not. I understand that bi-metallists say a ratio of $15\frac{1}{2}$ to 1 would cause a rise in silver and a loss in gold. Well, the reason by which they prove that seems equal to saying that if it were 20 to 1 it would not be attended with any such consequences.

8853. What objection would you have to suggest, apart from the mere objection against any alteration, unless the alteration be proved desirable, to a bi-metallic system with a ratio of, say, 20 to 1?—It is a difficult thing to deal with. In the first place, I

believe it would be absolutely impossible—I do not suppose you could possibly get France to agree to it; but that is not your question.

8854. Why do you think that it would be impossible?—Because I suppose France never would agree to it. I suppose they would say immediately, "Why you increase the burden of our National Debt very considerably; you put 30 per cent. upon it."

8855. (*Sir John Lubbock.*) And not only France, but the Latin Union generally?—Yes, certainly.

8856. (*Mr. Birch.*) And the United States and Germany?—Yes.

8857. (*Mr. Fremantle.*) And Holland and Spain?—Yes. I hope, if that practice is adopted, that our mint will stipulate for having the first issues.

8858. (*Mr. Barbour.*) I think you said that that change would increase the burden of the French debt by 30 per cent. How would it have that effect? Suppose you adopted the present ratio, would it increase the burden beyond what it is at present?—Why, at present they can pay in silver. We will suppose that they can purchase quantities of silver with a definite quantity of gold, and if $15\frac{1}{2}$ were established as the ratio they could only get $15\frac{1}{2}$ of that silver, with the same quantity of gold.

8859. But how would the adoption of 1 to 20 or 21 increase the burden of the debt as compared with what it is at present?—Why, because in order to get the money with which they pay their National Debt they would have to give 20 where, in fact, they give $15\frac{1}{2}$.

8860. But they cannot, at the present day pay their debts with silver at the ratio of $15\frac{1}{2}$ to 1. If any man has got hold of five-franc pieces he can pay with them, but they have a special value. He cannot take his silver to the mint at the ratio of $15\frac{1}{2}$ to 1 and pay with that?—That is my judgment. France is now mono-metallic, and its silver currency is a token currency.

8861. Then, I ask, how the adoption of a ratio of 1 to 20 would increase the present burden of their debt by 30 per cent.? It might be inconvenient to them in other respects, because they hold over-valued silver, but I do not think it would increase the burden of their debt by 30 per cent.?—Well, the difficulty is this, that at present their silver being a token money it may be said that it costs them as much as a bank note for 20 francs if they bought it in gold. But it seems to me that to get the silver to pay their debts, if you were to depreciate silver it would cost them more gold to get the requisite amount than it would if you made the ratio $15\frac{1}{2}$. I have always thought so. I confess at this moment I cannot give a very sensible or connected reason for it, but that is my impression.

8862. (*Mr. Birch.*) On the silver that they now hold the loss would be so great. Now it is valued at $15\frac{1}{2}$ to 1. If you made it 20 to 1 the loss would be very heavy upon the stock which they hold?—Yes, that is so.

8863. (*Mr. Montagu.*) But if the nations agree to the 20 to 1 to prevent very great loss, you would have no objection then?—I was going to say, one answer I have to make to it is, if a ratio of 20 to 1 were agreed to, it seems to me that there would be no object in it at all; I cannot see what would be the good of it.

8864. To promote trade between this country and silver-using countries, and to prevent future loss in the stock of silver held by these countries?—I doubt it very much indeed. I dare say many members of the Commission saw what was in the last "Economist," in which it seems that in spite of the tremendous difficulties in dealing with silver countries in the year 1872, the number of yards of cotton exported to India were 859,705,000; in 1886 the exportation was 2,118,838,000, that is to say, an increase of $2\frac{1}{2}$ times as much as there was in the year 1872.

8865. (*Chairman.*) It has been suggested that the tendency of a depreciation of silver as compared with gold is to reduce the price of commodities produced in silver-using countries, and also of the commodities which are exported to silver-using countries; and what is alleged is that, although after a time matters would

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adjust themselves (even as regards labour in this country) to the altered state of prices, yet that such an adjustment causes considerable friction and difficulty and disturbance, and that so long as you have no fixed ratio, and therefore a constant change, you never can get a real adjustment, but you will be always going on with the process, which will never quite keep pace with the alteration of price; and that on that account there would be an advantage, if it were possible, in having a fixed ratio which would prevent that fluctuation, and the consequent friction, caused by the adjustment of prices?—I am not a competent judge of the difficulties of dealing with a silver-using country, but I suppose there may be some inconvenience. It seems to have been to some extent got over by contrivances with the banks, but then they were paid for that, and I daresay if the difficulty, the friction, or whatever it is, could be got rid of, it would be better. It may possibly be that for their goods exported to India, if the man who did so were not a speculator in the value of silver at the time of his exportation. That may be. I cannot help thinking that these figures make that very doubtful. When you find that 859,000,000 in 1872 had become 2,118,000,000 in 1886, I should doubt it very much indeed. I should think, if it could be done, it would be better that there should be not a continual fluctuation in the value of silver, but you must set against it the mischiefs that would arise to this country from bi-metallism; that is to say, I do not say but what the present condition of things may not be some prejudice to dealings with silver-using countries. I think it may be; I think there is some evidence to show that there is some objection to it. It does not seem to me to be a very great one, and, I confess, I do not think it compares with the mischief that bi-metallism would cause to this country.

8866. Would you state what are the mischiefs that you would anticipate from bi-metallism, assuming it to be possible to fix a ratio which would not be above the market value of silver as compared with gold; that is to say if the ratio was such that there would be no tendency to cause a fall in the value of gold?—Well, one of the reasons is this: I rather think that the foreigners pay 100,000,000*l.* a year now upon our investments, and other claims upon them. I should be very sorry to see that reduced in value by 10 per cent. or 20 per cent., or what not. Then I am very much struck with the evidence of Mr. Currie, who speaks on a subject that I cannot pretend to know anything like so well as he does, that is to say, that at the present moment this country is what you may call the headquarters of the settlement of affairs between other countries, that is to say, a man in America buys tea in China and he pays for it by a draft upon London; and matters of that description seems to go very much to show that a great danger might arise to this country to lessen the supremacy that at present it has in those matters, it seems to me very reasonable. Mr. Fowler says that bi-metallism might, if we did not take care, degenerate into a mono-metallism of silver. Then, another thing I should like to say is, if you supposed such a ratio as has been mentioned in the first place, there would be the objections that I state, that people would be sure to have quarrels and disputes as to what metal they were to pay in. There is this other thing, it is a small matter, but if bi-metallism is to do anything, somehow or another it is to make silver part of our currency, and I want to know what good it would do to this country if prices are not altered, mind you, what good would it do to this country that instead of having to count sovereigns you had to count four-shilling pieces. It may seem a comparative trifle, but it would go for something, and if it is a trifle on the other hand, what is the good of bi-metallism at a ratio between gold and the present value I really have not seen, except perhaps with respect to India and silver-using countries, I have not seen an argument to show that any human being would be benefited by bimetallism at that rate, in fact it would be apparently

attended with no consequence, except, as I said before, that you would have to carry a greater weight of metal and coin and greater number of coins, so that my answer to that question is, though I cannot see any very great mischief, I can see some, and I can see no good.

8867. Is it not the case that in America they have a great deal of silver as the basis of their currency, but they carry very little of it, or coin very little of it?—Exactly, they carry silver certificates. And as I said before America is a mono-metallic country, a gold-using country entirely, and her silver coins are token coins. You know you cannot go to the American mint and say I insist upon your coining this.

8868. (*Mr. Barbour.*) You said that if we had bi-metallism there might be a great deal of confusion among people who made contracts, and a great deal of litigation owing to disputes as to which metal the contract was made in?—Yes.

8869. Was there a large number of disputes of that kind in the countries which have been bi-metallic for a long time; were there disputes of that nature in France and other countries when they were bi-metallic?—I do not know.

8870. Then you only give us your own opinion; it is not based upon any facts as to what actually took place in bi-metallic countries when they were bi-metallic?—No; nor can I say it is based on any particular knowledge, it is a speculation.

8871. You said that you thought our country was better off as regards its standard than any other country. Do you think it is better off than the silver mono-metallic countries?—I think what I said was, that somehow or other our country was better off as a commercial country than any other generally.

8872. Do you think that is due to its standard?—If I were to look at a dozen different objects and I found that one that was the best of them had some peculiarity about it, although I could not trace its goodness to that peculiarity, I should be very much inclined to doubt whether that peculiarity had not something to do with it.

8873. Then you think that the goodness of our standard has something to do with the state of our trade?—Let me put this case to you. Take a dozen farmers with equal capital, and suppose an equally fair chance, and one of them always produces a better crop than the other eleven do, would not you suppose that there was something about that?

8874. I would suppose that there would be something, but not necessarily a good standard. It might be good farming?—Well, suppose you found there was some peculiarity about him, for instance, that he got up at 6 o'clock in the morning, and the others did not get up till 8 and so forth, you could not trace rising at 6 o'clock in the morning to an increased crop of mangel-wurzel, but I should think you would be very much inclined to say that it had something to do with it.

8875. But would you not say in that case that his prosperity is due to his getting up at 6 o'clock in the morning, and not to the fact that his rent was fixed in gold?—It is always very dangerous to argue by examples, because however clever you think you make them, you find someone cleverer than yourself who sees quite a hole in your argument. My opinion is nothing more than this: I find a particularly prosperous condition of things here. I am very much inclined to think that our currency laws may have something to do with it. I cannot perhaps trace in what way, but I say be careful; the burden of proof is upon you who would alter the condition of things in this country.

8876. As regards the case you gave of a man in America buying tea in China and paying for it by a draft on this country, that is a case where a man in a gold standard country purchases tea in a silver-standard country, China?—Yes.

8877. Do you think that the fact that we have a gold standard makes him draw a bill upon us because

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it is a bill upon a gold country?—I feel inclined to say that your question is not quite a fair one, because I expressly said that I referred to Mr. Currie's evidence upon the matter. I really cannot tell why they draw here. I do not think they draw here because it is a mono-metallic country directly, but I think they draw here because they feel perfectly safe that their bill will be honoured in gold in an unvarying metal. That probably has got something to do with it.

8878. There has been an explanation given of that, which I think is this: that the course of bills follows the course of trade; that there being a great deal of trade between Eastern America and England and a great deal of trade between England and China, and not very much direct trade between America and China, it is better to draw on the country which is the centre of trade, because bills can always be drawn from there with advantage on other countries. Would that be a reasonable explanation do you think?—I cannot pronounce it to be an unreasonable one, but what I observe to you is this, that they not only do not draw upon China, but they do not draw upon any other European country.

8879. That might be from the trade causes?—It may be; I say I am not a very competent person to form an opinion upon such a thing. I would rather take the opinion of one who is as competent as Mr. Currie.

8880. If gold disappeared from the world and was replaced by silver by some extraordinary act, I suppose our position would remain very much what it is, financially and commercially?—I do not know. I confess I do not see any reason why it should not. I do not see why we should not do with silver what we have done with gold, that is to say, get such a command of it that people can thoroughly trust us. It is attributable to our wealth.

8881. Then with regard to the alteration in the relative value of gold and silver which has taken place since 1873, you think that people have got used to the present state of things, and that there is no necessity for making any change. I think that is your argument?—That is my opinion. I think if it were perfectly certain that no mischief would result it might be worth while with reference to India that we should have bi-metallism; but in my opinion it is not only not certain that no mischief would result, but it is absolutely certain that very great mischief would.

8882. Can you guarantee that the present state of things will remain, that gold and silver will not alter very much more in relative value?—No, I cannot indeed.

8883. Silver might fall still more and gold might rise?—It might.

8884. Would there not be a certain advantage in getting as it were a sort of resting place so as to remove the possibility of change?—I suppose the theory of bi-metallism is such, and I am not prepared to say it is wrong, that if instead of a certain weight of silver being worth only one-twentieth part of the same weight of gold it would turn out, owing to extra production of silver, to be one-fiftieth part only of the weight of gold, so that there was a still greater fall in its value in one sense when uncoined, still it might happen that bi-metallism would exist, and that the effect of such finding as that would be to diminish the value of the total bulk of gold and silver all put together, and so throw out of work the poorest gold mines, and by some contrivance or another bi-metallism would still subsist, and I suppose there is some difference of values between the two metals which would prevent that; but where that is I am afraid I do not know, and I do not suppose anybody would undertake to say.

8885. You hold the opinion that there is no appreciation of gold?—No sensible appreciation.

8886. The fall in prices you think can be entirely explained by cheaper production?—I have not gone into every case of a fall so as to say that in every case

it could, but I say the great bulk, the great majority of them, can be explained in the variety of ways in which they have been explained by people who know more about the matter than I do.

8887. I believe it is the case that there has not been in silver prices any very remarkable change; that wages and prices payable in silver do not seem to have risen so much as some people expected they would?—I believe that is so.

8888. So that although gold and silver have altered in relative values 25 or 26 per cent., it does not appear that all silver values and gold values all over the world have risen or fallen to that extent?—No, and that is equally true with a country with depreciated currency, such as Russia or Chili.

8889. That variation in the relative value of the two standards seems to disclose itself more in the international trade than in the internal prices and values of the gold and silver countries?—Well, it discloses itself in international trade and it also discloses itself very strongly in the two metals in European countries.

8890. But prices and values in the interior of the two countries do not seem to alter as rapidly nor to the same amount as the metals themselves?—I think that can be accounted for.

8891. Perhaps you would give the reasons for it?—Why it takes some time to spread into the interior, that is to say, the thing which has caused a fall in the value of any commodity I should think; but confining oneself to silver it takes some time for that to spread into the interior of the country. The Ryot or other person in India has been accustomed to get a certain quantity of silver for his produce. He has no reason for asking anything more because silver has fallen in England. But what would happen would be this, he will be found out by the man who can get silver more cheaply than he could formerly, and in order to induce him to sell to that man instead of selling to anybody else a little more silver will be offered to him. Well that would put him in possession of a little more silver and will enable him to offer better prices to other people that he deals with, and so in time the coin will lessen in exchangeable value in the interior until it has got to the same condition in the interior that it has out of the country or at the ports.

8892. On the supposition that the man who in the first place gets that little extra amount of silver, instead of using it to purchase anything immediately hoards it, that process of adjustment would be seriously interfered with?—I heard Mr. Justice Willes say once to Lord Campbell that you ought not to traverse a hypothesis. But if the hypothesis is an impossible one, as that if twice two are five, how much will twice three be, I think you may fairly traverse the impossible hypothesis or decline to answer them, and I mean, if you will allow me to treat this in the same way. It is impossible to suppose that all the sellers will hoard all the silver that they get. Some of them will not hoard all.

8893. I do not think I assumed that they would hoard all the silver they get, but only the extra amount. It is possible to suppose that they might hoard the greater portion of the additional silver which they get?—All I can say is that the process will be a longer one.

8894. And might not be carried to the same extent?—I dare say not.

8895. Now you have said that it takes time for prices and values in the silver countries to adjust themselves to the alteration in the relative value of gold and silver?—I think so.

8896. I suppose you would be equally prepared to apply the same argument to prices and values in this country?—Certainly.

8897. And say that it is quite possible that the price of carriages and horses, perhaps of singers and dancers, might ultimately fall here?—Oh, yes, they may, but then what I say is, if you rely upon the fall that has taken place in other matters those who are of a different way of thinking are entitled to rely upon

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that which has not taken place in the particular things I mentioned. They may be reached in time.

8898. You are no doubt aware that silver was originally the standard in this country?—Yes, I suppose it was. But I object very much to the word standard as applied to either of the metals or both of them. They operate as a standard, but they are not standards in themselves; they are things which fluctuate in ordinary exchangeable value, but with regard to silver it was at one time a legal tender to any amount.

8899. More than that. There was a time in this country, very long ago, when silver coins were the only coins that were coined?—Yes, I suppose so.

8900. Is it not the case that subsequently gold came to be coined also, and that generally Government fixed the ratio between gold and silver for the time being?—Guineas were not coined until rather late in the reign of Charles II.

8901. I believe I am right in saying that in those early days silver was looked upon as what was really the standard. Although the coins were often debased, silver was the standard of England, and the pound sterling contained a definite amount of silver. The gold coin which was legally of the same value as, say, 20s., might vary in the amount of gold it contained, but silver coin was not supposed to vary. Are you aware that that was the case?—I really cannot say at the present moment; but you will excuse me if I make this remark with great submission and with great respect. It seems to me so foreign to the matter in hand.

8902. But to show that what I state was the case I will read you a passage from a speech by Sir Robert Peel which he made in 1844, which shows that the pound sterling in silver was supposed to contain always the same amount of silver, but 20s. in gold might contain more or less gold. This is what he says:—"It was not until a late period of the reign of Queen Elizabeth that silver being then the standard of value received that determinate weight which it retained without variation with constant refusals to debase the standard of silver, until the year 1816, when gold became the exclusive standard of value." That is, that the silver pound always contained the same amount of silver from the time of Queen Elizabeth to 1816, but the 20s. in gold might contain more or less gold. You are not prepared to deny that?—I am not prepared to deny that. It is rather in accordance with what I remember.

8903. You are aware that we changed from the silver to the gold standard at the end of the last century and the beginning of the present one?—I should say so; yes.

8904. The change came not all at once, but by degrees?—Yes, I think it did.

8905. I think that during the whole time we were changing from the silver standard to the gold standard there was practically fixity of relative value maintained between silver and gold in the market; as matter of fact the market value of silver did not, during all that time, fluctuate very much. It may have changed from 15 to 15½?—I have no reason to say that it did; if you say it did not, I am sure I would not differ.

8906. Assuming that that is the case, it would follow that the authors of our present gold standard adopted that standard at a time when difficulties had not disclosed themselves, which have since appeared, that is to say, the great and frequent fluctuations in the relative value of gold and silver?—Why, what you ask me almost to say is that the year 1796 was considerably before the year 1872.

8907. That I have no doubt of; but what I want you to say is that at the time we changed from the silver to the gold standard, there was practically fixity of value between silver and gold?—I take it to be so.

8908. And, therefore, those who adopted a gold standard in this country could not have had practically

before them the difficulties that follow from frequent fluctuations?—That follows.

8909. And since the time we adopted the gold standard I believe the commercial and financial relations between different countries have very much increased?—Oh, enormously.

8910. There is probably more communication now between England and India than there was at that time between England and Ireland?—Oh, yes.

8911. So that the importance of having the same standard of value, or practically the same standard of value, in two different countries, was not so great in the beginning of the present century as it is now?—No, certainly not, whatever that importance may be.

8912. And consequently it may be a question whether or not the gold standard would have been introduced at that time if those difficulties had presented themselves to the authorities?—How can anybody say what would have been done in the year 1796 if people could have foreseen what would happen in the year 1886.

8913. At any rate you would not say that, in view of the additional experience we have had and of the altered conditions of foreign trade, it is not unreasonable to review what was done in the beginning of the present century?—I should say it would be utterly unreasonable, if it were different to what it is now. A thing is either right or wrong, not according to the time when it originated, but according to the time when it exists, that is now. Suppose this had taken place, instead of in 1796, in 1496, could you say that there was any possible reason for reviewing it now? Review it now upon its own merits as it stands now, not upon considerations that if they had existed in 1796, when they did not exist, might have influenced people who acted upon other considerations.

8914. But if we review it now we should have to take into consideration facts which did not exist at the time the former change was made, and could not have been before the authors of that change?—Certainly, because if you review it now, review it upon the circumstances which exist now.

8915. You have no doubt seen the estimates of the consumption of gold in the arts and for ornaments?—I have seen them; I frankly own to you I have not paid much attention to them.

8916. You think it very doubtful if they are correct?—Whether they are correct or not, I do not think it matters. I do not think it affects this question before you at all.

8917. If they were correct, does it not show that there must have been a great increase in the consumption of gold in that way in recent years?—I do not know; I really cannot say.

8918. The consumption of gold in the arts, ornaments, and hoarding is supposed to be sixteen and a half millions sterling. As the production of gold in the beginning of this century was only about two and a half or three millions sterling, it follows, if there is sixteen and a half millions sterling used in the arts and for hoarding, that there must be an increase?—That is a curious argument in favour of the appreciation of gold, to say that more gold is used for the purpose of luxury for which it need not be used. Now in my opinion, if gold had appreciated—I was going to give that by way of illustration—if a man found that in order to get a gold watch he had to give that which would purchase, say, 30 quarters of wheat, when formerly he would only give that which would purchase 20 quarters of wheat, I think he might hesitate about having his gold watch, and consequently the more you show that gold is used in the arts and for purposes other than currency, the more to my mind you show that it is not appreciated.

8919. I did not say that the use of sixteen and a half millions of gold in the arts and for hoarding proved that there was appreciation of gold. As the production of gold in the beginning of this century was only two and a half millions sterling or thereabouts, it follows, if there is sixteen and a half

millions sterling used in the arts and for hoarding, there must be an increase?—I cannot say.

8920. But assuming for the moment that that estimate is correct, there must have been a great increase in the use of gold in this way in recent years, and may it not be possible that gold will appreciate too rapidly to be a good standard of value in the future?—I cannot say that that is not possible, but I protest against its being called a standard of value. The metals are not standards of value except to this extent, that there is no better standard. They are things that fluctuate in their exchangeable value, and therefore they cannot be standards; the only reason for calling them a standard of value is that there is no better. What they are is this, they are materials of the circulating medium. That is what they are, and what they are ought to be considered.

8921. But contracts for payments extending over a long time are generally made in terms of gold or silver?—Yes, and for those contracts they are in a rough way intended to be a standard. In that sense you may not unreasonably use them as a standard of value, but it is only because, as I have said before, you have no other, and I quite agree if the circulating medium were made up of two metals, though the fluctuations might be more frequent, as to the value of any part on account of the greater or less production of either of them, yet as a whole, inasmuch as the bulk would be greater, I suppose, as a whole, the fluctuations would be less upon each occasion.

8922. (*Chairman.*) I suppose you would not dispute that that substance would form the best standard of value, using the term in its common acceptance, which would least vary in value from any causes inherent in itself, or relating to itself?—Well, I should be very much inclined in answer to your question to agree; but you must always bear this in mind, if you would have a definite ratio between gold and silver, and you get so many countries to agree to it, and to bi-metallism in its full sense, the result is that the total circulating medium of the world is made up of the two metals, and whatever has a tendency to raise or lessen the value of one has a tendency to raise, therefore, or lessen the value of the bulk, and inasmuch as you would have two things, the production of which varies in facility, you would have two causes for instability, and the only set off against it would be that, although you would have more frequent causes of instability you would have a larger bulk to be operated upon, and the fluctuations would be less.

8923. (*Mr. Barbour.*) Can you give any reason why gold and silver should have altered in relative value so much as they have done?—In the first place (I cannot help thinking) the unfortunate demonetization of silver in Germany, in Holland, in Italy, and to a very large extent in France, and in the United States, where they have taken to token currencies.

8924. You think that is the chief cause?—Yes; I do not know that there has been a very great extra production of silver to cause the difference, and of course I do not think gold has anything to do with the case. I think gold has remained stationary in price.

8925. Gold as against gold has remained stationary?—Yes; the real exchangeable value of gold has not diminished or increased.

8926. But gold will purchase more now than formerly, will it not, taking things all round; that may be due to cheapening of the production of commodities, but gold will purchase more, will it not?—Certainly; it will buy more iron, it will buy more silver. I was going to say it will buy more wine, but I am not quite sure about that.

8927. But still if you take the average of things all round it will buy more, because wine is a small portion of the world's goods, though perhaps an important one?—Well, I should say in the same way, a large emerald has got a larger purchasing power than it had. I know it is not currency.

8928. You would not use an emerald as a standard of value?—No, and I do not call gold so either, any more than can be helped.

8929. I think that your evidence is to this effect, that while you do not deny that there are some benefits to be derived from fixity of value between gold and silver if it came, still you do not think it would be worth our while to change our standard on the chance of obtaining them?—Certainly, I do not think it would be possible, and if the ratio were to be $15\frac{1}{2}$ I am quite sure that it would not be. I have a misgiving about that. Let me tell you there is a thing which you have not mentioned, which I think is a very important one, whether bi-metallism would cure it or not. I do not know, but the expenditure of the Indian Government being to very considerable extent in gold, and the taxation being in silver, one can see very clearly that the cost to the Government of India is greater than it was before, and unfortunately, until the silver falls in value in the interior of India, you cannot augment taxation, I am afraid without difficulty.

8930. That is, as regards the Government of India, a certain difficulty?—Yes, it is undergoing considerable loss, and I do not see how it is to set itself right.

8931. It has been suggested that if gold and silver came to be used as money at a fixed ratio, gold might ultimately disappear from the currency, or that it might be given a value different from the legal ratio and be used for special payments. I suppose that might happen?—I am a firm believer in the Gresham law.

8932. The cheaper metal driving out the dearer?—Yes.

8933. Gold might get so scarce that the market ratio differed from the legal one?—If there was bi-metallism?

8934. Yes?—No, I think not.

8935. You think it would not?—I think it would not. A professor of political economy was very much afraid that some such thing might happen, but I said to him, you are aware that the supposition is that such a number of mints are parties to this transaction; you are afraid that the gold would be taken away. Where would it go to? Who would buy it? Well, he was compelled to confess he could not answer the question. It was a tolerably obvious one. I do not take any great credit to myself for having put it, but it seems to me tolerably clear if you have so many mints engaged in this matter that they are almost monopolising customers, you have got no other customers for them. If you have got another customer for them your bi-metallism goes to the ground; but if you have no other practical customers for them it seems to me that the ratio would be preserved and that neither metal would desert a country. Just allow me to make this remark while I think of it. I have been asked whether the same thing could be done with beef and mutton; whether there could be a definite ratio between beef and mutton so that whenever beef was sold at nine pence a pound mutton must be sold at ten pence. The answer is, no, because there are so many consumers of beef and mutton that you could not get them into that agreement. Beef and mutton have a value in themselves which is not of an artificial character like currency, but you might possibly establish a bi-metallism with a definite ratio which would continue between gold and silver if the sufficient number of consumers would agree to it; but you could not establish a ratio for articles where there are so many different customers as there are in the two things that I have suggested.

8936. I do not know whether you are aware that Locke's opinion of the best standard was this, that silver should be coined, and silver coins be the legal money; that gold should also be coined, but that there should be no ratio between the gold coins and the silver coins; and that the gold coins should pass for whatever anybody chose to take them for?—I am afraid I must give the same answer as I did before. I have the very highest reverence for Locke,

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but I do not think his opinions have got much to do with the matter in hand:

8937. But Locke wrote upon the currency at a time when there were a great many difficulties, and I believe it is very generally admitted that his opinions were very valuable, and had a great influence in guiding the government of the day to a sound decision, and therefore it is, I should say, worth while considering what his opinion was on this question, although circumstances have changed since his time?—I merely mention to excuse myself not knowing more about it than I do. I think this question must be discussed on other considerations which could not have been present to the mind of Locke.

8938. It has been put forward as a great objection to bi-metallism that if you adopted a legal ratio, the legal ratio and the market ratio might be different. You say that in your opinion they would not. So far as your evidence goes that ends the matter; but as regards other persons, it is desirable to point out that if that state of affairs arose to which they strongly object, we should merely have got to a currency system which Locke thought would be best of all?—But if there was a difference in the value of the two coins other than the ratio, that is to say, if the sovereign was worth more than five four-shilling pieces, and people would give more for it, and they were at liberty to do so, as Mr. Gibbs says, they ought to be, why the answer is, there would be an end to bi-metallism altogether.

8939. But we should then have got to that state of affairs which Locke thought would be the best of all?—Well, you had better say so at once; instead of having bi-metallism, use one metal and stamp the others with an ounce weight, two ounce weight or so much, and let them be the subjects of purchase and sale.

8940. The one metal would be legal currency, and the other would be a money merchandise. Do you think that system would work well in practice?—I do not think it would work; I am at a loss to see the good of it.

8941. It would give all countries the same standard, the metal coined and made current by law would be the standard everywhere; it would prevent fluctuations in exchange between two countries?—If you were to make England mono-metallic in silver, and allow coins of gold to be bought and sold at the price people thought fit to give and take for them, I cannot see what good would be done.

8942. Well it would give all countries the same standard; silver would be the standard everywhere, and it would prevent fluctuations in exchange between different countries?—Well, then I think it would be attended with this, that people dealing with us now deal, knowing they will be paid in gold, and they would then deal knowing they would be paid in a metal which fluctuates very much in value.

8943. But I have been assuming that silver would be the standard everywhere so that it could not fluctuate as regards itself?—Besides there is another thing, as I understand, the object of bi-metallism is to raise prices.

8944. Some people have said it would prevent an evil, a fall of prices caused by appreciation of gold?—There is no appreciation of gold, and therefore the reason for it does not exist.

8945. You have heard it said that in modern commerce gold is less and less used every day; business is done more and more by credit and paper?—Yes, certainly; most remarkably so.

8946. But I suppose there is a limit to that?—I was going to say, I hope you will not think me rude, I suppose there is a limit to everything. Since I have been living near two little towns in the country, a branch bank has been established in each of them.

8947. I merely wish to put the matter in this way, that it is conceivable that gold might become so scarce as not to be suitable for the standard even though great economy in the use of gold were attained?—I do not think so. I think if that magical wand were waved, of which I think we heard a little while ago, and every sovereign became half the size that it was before, it

would do its business quite as well as now or nearly; I do not think it would be as good as it is now, because I think the present is a convenient size to have. Of course the proportionate wear and tear would be greater, and no doubt it would rise in value as an article of use. For instance, watches and what not.

8948. But still there must be a limit to the reduction of gold which would take place if it is to continue to be a good standard?—If you had a sovereign reduced to the size of the threepenny piece I suppose it would be a nasty thing to finger.

8949. But besides that there would be a limit below which you could not reduce the gold reserve in any country. For instance, when the gold reserve became so small that a ring of capitalists could operate upon the money market in order to make gold scarce, then you would be approaching that limit?—But I do not believe in a scarcity of gold in that sense.

8950. It is theoretically possible, but practically you think we need not fear any such thing as that?—No, I will utter a paradox if you will allow me. I think every country has as much gold as it wants, and no more. I think if 50 million sovereigns were paid into Her Majesty's Treasury here at this moment the consequence would be a small rise in prices, and after a time the sovereigns would make their way out of this country, and there would be more in France and more in Germany and more elsewhere, and probably the value of the gold would not very much rise all over the world; on the other hand, if by any chance 50,000,000 were taken from us, the effect would be we would send our goods abroad. A smaller price would tempt us abroad inasmuch as when that price came here it would be of a greater value than it was before. I believe every country has as much gold as it wants.

8951. Has its proper share of the gold of the world?—Has a share of gold sufficient for its circulating medium, considering its wants; that is to say, its banks, its notes, its credits, and what not.

8952. (*Chairman.*) Do you think that now the prices of commodities in different countries are so much more linked together by reason of immediate connexion by telegraph, and so on, that the same shifting from one country to another of a certain amount of bullion would not be as likely to affect prices as it was before?—I do say that. A country wants as much coin as will enable it to do the circulation of its commodities. If by a chance a quantity of that coin should go, there would be probably a small fall in prices. There would then be an extra tendency to export and get money for the things exported, and so supply that deficiency which existed.

8953. (*Mr. Birch.*) I gather that you are of opinion, after giving every attention to the question, that as far as England is concerned, it is better not to attempt to interfere with our present monetary system as regulated by the law of 1816?—That is my firm conviction.

8954. Still you seem to think that there would be no great difficulty in arriving at an understanding with regard to fixing a ratio between gold and silver likely to be maintained under all circumstances?—I think there would be great difficulty in coming to an understanding with other countries.

8955. I understood you to say that you did not see any great difficulty?—Well, I cannot tell. I suppose that the United States and France are willing to discuss this matter with Germany; but whether they would agree upon terms I have the very greatest doubt. And what I meant to say also was this; it seems to be a very difficult thing to say that we could agree with a sufficient number of gold purchasers to insure the continuance of the agreed ratio.

8956. (*Chairman.*) I understood you rather not to speculate so much on the possibility of our coming to an agreement as to say that if we did come to an agreement with a sufficient number, bi-metallism was practicable?—My difficulty was the sufficient number.

8957. (*Mr. Birch.*) Then I said, supposing a ratio fixed, would you feel certain that no circumstances could arise to induce nations to separate themselves from the agreement as the Latin Union did in 1876?—It would be utterly impossible to say that that is impossible.

8958. And probable rather?—And probable. Suppose we went to war with any one of the countries and they thought that by departing from this agreement they would do us a mischief, they would do so. An agreement to the contrary would be like boys fighting under an agreement that there would be no hitting in the face.

8959. If the production of gold has not increased at the ratio of 20 to 1 of silver, is it not probable that if you raise the value of silver to $15\frac{1}{2}$ to 1, there would be less inducement to produce gold?—Certainly you know it is manifest that that rise in the value of silver would have a tendency to lower the value of gold. Perhaps the gross value of the two together would not be greater than it was before; silver rises, gold falls. Well then the inferior gold mines or gold works go out of work.

8960. Now you see we give 20 pieces of silver for one of gold, and then we propose to give $15\frac{1}{2}$, consequently there would be less inducement to work the gold mines?—Certainly, and more inducement to work poor silver mines.

8961. You agree with Lord Liverpool's view that for a country in the position of England, gold is the best measure of property?—I am afraid I must make the same answer to you that I did before. I am sorry to say I have not studied Lord Liverpool's view very much.

8962. The alteration in the value of silver proceeded in no way from any action on the part of England?—I should say certainly not; I never heard it suggested that it did.

8963. It was by the action of the Continental Powers, with which England had nothing whatever to do?—Certainly.

8964. And do you think it advisable in any way that England should subject herself to foreign Powers in any matter connected with her monetary arrangements?—I think she would manage her own affairs better for herself than anybody else would.

8965. (*Mr. Chaplin.*) Did I understand you to say that the demonetization of silver was brought about by what might be called natural causes in France and Germany?—I think I used that expression, but it was not a very satisfactory one. What I meant was, it was not brought about with a view to raise the value of silver or gold, or depreciate the value of silver; it was brought about for currency purposes by the Germans mainly.

8966. It was brought about by the action of foreign Governments and by legislation?—Yes.

8967. You saw nothing objectionable in that?—It seems to me that they had got a serviceable currency in silver, and the effect of what they did was to purchase gold and diminish the value of the silver that they have now in their coffers. They cannot sell it. They seem to me to have been losers by the transaction.

8968. But apart from its wisdom, you see nothing unfair or objectionable in that way?—Not the slightest.

8969. Then you would see nothing unfair in what is called its rehabilitation?—No. Well you could not call it unfair. Every nation has a right to do that which is best for itself, and if the Germans thought fit to have bi-metallism in their own country, why so be it, with all my heart, but I should rather like to see them try the experiment.

8970. And would the same argument apply to this country?—If, as I said before—possibly you do not remember—if for a *bonâ fide* currency purpose bi-metallism was thought to be a good thing, I do not see that anybody would have a right to object to it. The man who stipulated for payment in gold in a mono-metallic country, did not stipulate that the currency should continue mono-metallic, in my opinion. All he stipulated for was that his gold should not be

depreciated in value for the benefit of his debtors and to his detriment.

8971. And that statement of opinion of yours would be quite irrespective of the ratio which might be arrived at?—Yes; quite so.

8972. You doubted, I think you said, the appreciation of gold, because if it had appreciated naturally, the fall in prices would have been universal?—Well, subject to this qualification, you know that there are some things that might rise in price of themselves, and therefore there would not be a fall. For instance, take my case of the dancers; if there was a scarcity of dancers they might rise in price, I suppose.

8973. You quoted another commodity which had not fallen. I think you said we pay as much for labour. Are you well acquainted with the condition of the labour market?—Certainly not; I cannot tell.

8974. Then you would not dispute the evidence given us by people intimately conversant with the working classes, that labour has fallen very considerably?—Since when?

8975. Well, the dates that were given us, between which a comparison was made, were the five years before the demonetization of silver, that was before 1873, and the last five years before the present time?—And do they say that the wages of labour are less now than they were five years before the demonetization of silver.

8976. Yes; the evidence amounted to this, that after allowing for the buying of commodities cheaper, the loss in real wages was something over $12\frac{1}{2}$ per cent.?—In the first place, I cannot but have the very greatest doubt about it, because it certainly is contrary to the opinion of everybody, that the labourer is better off than he was; not only that the exchangeable value of his labour is greater than it was, but there is another thing to be said about it. Why make a comparison between five years before the demonetization of silver and five years now? What happened during the first five years after the demonetization of silver, because if the gold rose it ought to have risen then?

8977. I am speaking from memory; I think the fall was described as gradual throughout; but that was the evidence that was given by that particular witness. But in addition to the loss in wages, it was also stated that there was at least 10 per cent. of the artisans out of employment altogether?—At the present moment I have not the slightest doubt in the world that there is some distress, and that some labourers are suffering.

8978. I should like also to call your attention to the last number of the "Board of Trade Journal," and in that is published, for the month of November, a return prepared for the Kent and Sussex Labourers Union, and the effect of this return is as follows: It makes a comparison between the numbers unemployed and the rates of wages with those which prevailed in 1880, and then it says: "From this it appears that many more labourers are now without employment than there was seven years ago. It will also be seen that not only rates of day wages, but also piecework prices, have been during the same period materially less." That is the evidence with regard to agricultural labourers in the south of England?—I am not able to express any opinion upon it except in this way, that there is not the slightest doubt in the world that the condition of agriculture is such, partly from the changes in cultivation, partly from the poverty of the farmers, and their distress in a variety of ways, that there is less work for agricultural labourers than there used to be. Well, they shift about, and look for employment, and compete with those who were formerly carrying on other trades and occupations, and therefore one might suppose that that would bring about a fall in wages. One might suppose that that would be a natural consequence of it; but what I meant to say was, that it did not seem to me, looking at the wages paid to labourers, that it would be in any way traced. I thought they were so much better off since the commencement of the time when it was said gold began to appreciate, that I thought I was

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justified in saying—perhaps I am not—that there was not a fall in wages.

8979. Then I gather now that you admit that we are probably paying less for labour than we were?—I cannot contradict any facts; I have not the statistics sufficiently in my mind.

8980. (*Chairman.*) But that would not apply to all labour, would it,—domestic servants for example,—and a variety of classes of labour which all ought to have fallen on the theory of the appreciation have not fallen?—No.

8981. (*Mr. Chaplin.*) I think you admitted that the present system may be prejudicial in dealing with silver countries?—I cannot deny that it is because gentlemen who have come before you who do trade with silver countries, who are entitled to respect in every way for intelligence and good faith, will tell you that there is an inconvenience.

8982. But you hold that whatever relief might be gained in that matter by the adoption of bi-metallism would not be compared with the mischief it would do to us as a whole?—That is my opinion as far as I can form a judgment on the subject. I have no doubt of the question of the mischief.

8983. Then you say that undoubtedly it would be very injurious to us as a creditor country. That, I think, is your first objection?—Well, let me say not the first objection; I do not know which is the stronger one of the two—altering the value of every debt that is owed in the country or altering the value of every debt that is owed out of the country.

8984. But altering the value of the debts that we are owed out of the country would be very injurious?—I think so.

8985. But would not these objections to the adoption of bi-metallism be more than compensated for by the advantages which the bi-metallists claim for it, supposing they could prove their case?—I think not.

8986. You have studied their case, of course?—Yes, I have read their case.

8987. And you have come to the deliberate conclusion that the injuries would be greater than any advantages that could be derived from it?—I do, without a misgiving; and it seems to me that the great advantage that they would get would be a lowering of the value of gold, which, as I say, I think would be mischievous. But they say if you lower the value of gold, if you raise prices it would create an immense quantity of trade. In my opinion it would do nothing of the sort. I cannot see how it would have that effect, except this—this of course may possibly happen: I have always thought as far as the world is concerned the discovery of a great gold mine, or a great silver mine, was a bad thing. It set people digging for the metal, getting the metal instead of producing consumable articles, and the only consequence was that you get a bigger coin to do your circulating business than you had before, and the illustration which has always occurred to me is this: Suppose that by hammering a sovereign for a week you turn it into two sovereigns. I do not know any chemical process by which it could be done; but if I might put an impossible hypothesis, what would be the consequence at the end of the time? You would have had everybody hammering at gold, take it to be done in three days, and would you be the better off for it? If a gold mine is discovered in a particular country it would be very good for that country, because by means of it they would be able to get many other things from other countries. Forgive me for that long introduction. It seems to me that if you raise prices it may be that there is a temporary spurt given to trade which is very beneficial to those who are producers and manufacturers, but then it seems to me that it is very mischievous to those who have to pay extra sums for it.

8988. And do you think that the great discoveries of gold in California were a disadvantage?—To the world at large. I do not think the world gained anything by it. You must always bear in mind that gold is an article of consumption. You have gold watches

and gold plates for false teeth and so forth, and gold decorations for your houses. So far the world is a gainer by cheap gold; but so far as currency is concerned, I do not see that the world is a gainer by cheap gold. California gained very much by it.

8989. Was not there a general increase of trade and prosperity in this country after the discoveries of the gold?—That would be so for the reasons I have given. Suppose I were to land in the Isle of Wight with a millions overegns. I am going to spend these million sovereigns. I should create a great quantity of business in the Isle of Wight, which after a time might spread to Hampshire and possibly be traced to London.

8990. Would not that be a general advantage?—It would be; but supposing, instead of having the sovereigns dropping from the clouds in vast bags, I had a lot of people digging them out of the earth. I believe it is said that gold mining does not pay, that if you look at all the mines and all the gold got you would find it did not pay; but if you alter the position of people and give one man more than he had before, and to a certain extent take away from another something that he had, why you may create a business between those two until their positions are to a certain extent restored to what they were before, but I do not know that any good would be done by it.

8991. Then you cannot see that the adoption of bi-metallism can do any good whatever?—I think if you could raise the value of silver, it would be a good thing. I am bound to think it a good thing, because those who know all about it say it would be a good thing if you could have the two metals in such condition that neither of them should be subject to any very great fluctuations in value. For instance, as at present is the case with the silver, because in that case the man who at present exports from the gold country to the silver country is to a certain extent a speculator in silver. I suppose it must be, as those who know all about it say, that it would be a good thing to get rid of. As far as I can judge, it is not of very great consequence. Another thing undoubtedly would be good, if you could raise the value of silver you would diminish the expense of the Government of India. As to that I suppose there is no doubt. It is an Indian difficulty.

8992. And in those respects that you have mentioned you admit that it probably would be advantageous; but they do not compensate for the injuries that would be inflicted upon us as a creditors country?—That is my opinion, that is my strong belief.

8993. In other respects you do not think it would be useful?—I do not.

8994. And you disagree, generally speaking, with the contentions of the bi-metallists?—I do.

8995. (*Sir John Lubbock.*) To go back for a moment to the question of demonetization of silver by Germany. When she altered her currency she adopted, did she not, the then actual ratio of value between gold and silver?—I believe she had gold coins, though not many, and I believe she coined them in the relation of $15\frac{1}{2}$ to 1, before the demonetization of silver, did she not. I said that with reference to your word "adopt." I think it existed there before.

8996. I mean she made gold legal tender at the then existing ratio between gold and silver?—Yes.

8997. Of course it would have been a very different thing if she had instituted by law a new ratio of $15\frac{1}{2}$ to 1, when the market ratio was 20 to 1. You said it was not just; but there is this difference that what she adopted was the then ratio. If she had adopted a different ratio you would then, as I understand, consider that she would have been doing an injustice?—I hardly know. If Germany had adopted, to use your own word, a different ratio than $15\frac{1}{2}$.

8998. The present ratio of gold to silver is 20 to 1. What the majority of bi-metallists propose is that we should not only adopt bi-metallism, but that by law we should enact that the ratio should be not 20 to 1, but $15\frac{1}{2}$ to 1. That you would consider would be an

injustice?—I should say it would be attended with great injustice.

8999. And as regards India also, if I understand the general tenor of your evidence correctly, you would think it unjust to a debtor who had undertaken to pay a certain number of rupees per annum with a rupee of 1s. 5d., if the rupee should be designedly altered and raised to 1s. 10d.?—Yes, I certainly do. for the same reason. It seems to me that a man may fairly say, "I stipulated for payment in a metal which might be affected by currency arrangements for currency purposes, but which cannot fairly be affected only to make the situation of debtors more easy and creditors disadvantageous." That is an unfairness.

9000. And you would consider, as regards this country, that it would be extremely undesirable to make any change in our legal tender unless for some great cause?—I do.

9001. You said that if there was another use for gold and silver besides that for purposes of coinage, then bi-metallism falls to the ground; and I understood you to say that there are no definite facts as regards the proportion of gold and silver used in the arts?—No.

9002. But Mr. Soetbeer and others have estimated that out of an annual production of 43 millions of gold and silver no less than 17 millions are used in the arts; that is to say that something approaching to one half is used in the arts. The proportion is about 17 millions in the arts and 23 millions for coinage. Of course that is very rough; but assuming that there was anything like that amount used in the arts, in your judgment it would render it very difficult to maintain the ratio between gold and silver?—I do not quite see that the quantity used in the arts, as it is called, would augment the difficulty. I wish I had got a paper here that I wrote a good many years ago, which is in Messrs. Gibbs and Grenfell's book, in which I suggested a possible limit; there must be some limit. The ratio must be such that it would not be worth the while of the metal owner to use it for production in the arts, as it is called, rather than have it coined; but I think, subject to that limit, I was of opinion it was rather an elaborate matter that the amount of the ratio would not matter very much, for the somewhat similar reason. I am still of opinion that the quantity used in the arts cannot matter very much, that is to say, I think it is like the old story of the labour, as I think, as soon as it is wanted for currency it would be applied to that purpose, preferentially to its being applied to any other purpose,—either metal.

9003. My impression had been that the use of gold in the arts being so considerable, if you arbitrarily laid it down by law that while gold is now worth 20 times the value of silver in the arts, it should, for coinage purposes, be accepted at the rate of 15½ of silver, that the tendency would have been that gold would have been used more for the arts and gradually gone out of circulation?—I think that would be so.

9004. And therefore the tendency would be that we should practically become mono-metallic with a silver currency?—I have got this sort of notion that as soon as ever your currency has, what shall I say, more silver in it than it ought to have, gold will be diverted from the arts and applied to currency purposes; but I see your objection. I am not prepared to say it is not a well-founded one, I assure you.

9005. (*Mr. Fremantle.*) If that were the case, and gold were largely diverted to the arts, there would remain a superabundance of silver in circulation in this country, would there not?—Yes. There would not remain more than was necessary for the circulating purpose.

9006. But the amount of silver would be larger in proportion to the amount of gold?—Certainly.

9007. Do you think that would be an inconvenience?—It would be an enormous inconvenience.

9008. That is to say, so long as we keep up our habit of using metallic money in all small trans-

actions, it would be a great inconvenience that we should be deprived of our sovereigns and half sovereigns?—I would undertake to say that there is not a gentleman at the table who has got 10s. in his pocket in silver. No, they will not carry 10s. worth of silver.

9009. Lord Liverpool says in his letter that gold was adopted as the like standard of value, in consequence of the preference that people showed for it?—Yes.

9010. And you have no reason to doubt that that is the fact?—Not the slightest.

9011. If it is true, and it undoubtedly is, that silver was the original standard of value, is it not probable that, when Government regulations were made fixing the relative price of gold and silver, the price laid down as the price of gold followed the preference of the public, and that if an advantage was given to gold in the valuation, it was done because the public had shown a preference for it?—And the raising of the thing. I should say that would account for the preference perhaps.

9012. (*Mr. Barbour.*) Have you specially looked into that question as to whether Lord Liverpool was right?—No, I have not.

9013. (*Mr. Fremantle.*) Has it not at any rate been the case that since gold coinage was first introduced it has been the coinage of preference in the smaller transactions?—Preferable to silver.

9014. Preferable to silver?—I should say undoubtedly, and for the obvious reason that it is less weight to carry and less to count.

9015. I should like to ask your opinion on the principle of bi-metallism, namely, whether you consider that it is undesirable in principle to fix a proportion between gold and silver?—If no good were to be got out of it, I should say it was objectionable, but then they say that some good is to be got out of it, and one cannot conceive that that might not be. But then you must consider what good is to be got out of it compared with what mischief will result out of it. I do not say absolutely no good could result from a definite ratio between the two fixed for all time. I suppose it might. I suppose our trade with silver countries would be easier than it is now.

9016. But looking at it as a matter of principle, has such a thing ever been done in the history of this country as to fix the relative value between two articles, whether metals or other commodities?—Not that I know of.

9017. Would you limit your objections to bi-metallism to the question whether it were shown to be desirable or not?—I should look upon it as a whole.

9018. As far as the principle is concerned, you would not object to it?—It is so difficult to say. I should be very glad if we could get the good of it without that, because it seems to me that it cannot be attempted without a risk of failure either at the very moment of doing it or at some subsequent time.

9019. (*Sir T. Farrer.*) Do you think it is possible, considering what the habits of the city of London are, that if we had a bi-metallic ratio fixed by law merchants and bankers might insist on contracting that their debts should be paid in gold?—I suppose they could do that, but then what would happen suppose a banker discounted a bill of exchange and then wanted a payment in gold from the acceptor, the acceptor might say no.

9020. And from him silver would be legal tender?—According to the scheme.

9021. But supposing that the bankers, who have a great deal in their power if they choose, were to say, "We will not lend except on the understanding that you pay in gold, and if you do not pay in gold when the time comes you will not have money from us again"?—Mr. Gibbs says he would allow that. Of course it could be done. I suppose a banker could say to his customer directly he came in, "Gold in our dealings," then there would be a bargain which would be a lawful one and enforceable one; but what I am putting is this, supposing he discounted a bill for

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his customer, and not his customer had to pay but the acceptor, he might say, "I do not know what you agreed with your customer, but here is silver for you."

9022. Are you aware that that case actually occurred in California? That in California when the United States made their greenbacks legal tender the people refused to accept the greenbacks and insisted on doing their business in gold?—Yes.

9023. And are you aware that the case was taken into the Californian courts?—I do not know that, but I am quite certain that the Californian people carried the day. They succeeded; the greenbacks did not get into circulation.

9024. I may mention exactly how it happened. The first point was this, that the Californians made their contracts to pay in gold. The Californian courts held that those contracts were valid, notwithstanding the United States law that greenbacks were legal tender. But the courts held that they had no power to give damages except in legal tender, and consequently there was no remedy. The Californian Legislature thereupon passed an act to enable their courts to enforce specific performance to pay in gold. That law, I believe, has been upheld, and under that law all dealings in California have since been in gold. You are aware that their dealings are in gold?—I was aware that the Californians had managed to get rid of the greenbacks, and that they had refused to have them foisted upon them.

9025. Does not that show that under certain circumstances, whatever the law of legal tender may be, if people have a strong inclination to deal in gold rather than in notes or in silver, they will find means of doing so?—I suppose you might put your question in a more general way. If people are minded to do something which is contrary to the spirit or intention of the law, will they not contrive in some way or other to do it? Well, they will generally.

9026. And if that were done or done generally in the city of London, the result might be that there would be a premium or agio on gold?—Certainly.

9027. And that might lead to diversity between the practice and the law, which might be attended by considerable inconvenience?—Certainly; and it occurs to me that that permission to contract yourself out of the law is eminently calculated to increase the confusion which would otherwise exist.

9028. You said that if a man had a debt owing to him he would have no right to complain if an alteration of the currency were made for general currency purposes by which the value of his debt was reduced?—I should say not.

9029. I quite agree with you; but you would not deny, would you, that the consideration whether making an alteration in the currency law would have the effect of altering the value of all debts or not would be a very material consideration in making the alteration in your law?—A most material consideration, because it would be a consideration whether you should inflict a certain amount of grief and sorrow upon half the community for the benefit of the rest. I cannot but think that that would be a very important consideration.

9030. (*Mr. Barbour.*) You said in answer to Sir Thomas Farrer that bankers in London might insist on making their contracts in gold?—I suppose so.

9031. And there might be other bankers in London who would be prepared to make the contracts in the ordinary currency of the country without any stipulations as regards gold?—There might be. I am pretty sure if one currency was worth more than the other there would be both sets of bankers.

9032. And it is not unreasonable to suppose that customers might prefer to go to those bankers who did not impose any special stipulation?—I do not think they would care.

9033. Then as regards California, is it not the case that the people in California were practically unanimous in refusing to take greenbacks?—There must have been an enormous majority, or practical unanimity.

I do not see how otherwise they could have kept the notes out. Because if any number would have taken the greenbacks somebody would have been found to take them away from them, and so they would have permeated the whole society.

9034. So long as a country is practically unanimous in refusing a certain standard there is no possibility of enforcing that standard upon it?—I should say not. But if the majority of the people of this country came to the conclusion that silver was good for currency, that objection would cease. I do not say they are likely to come to that decision or that they ought to; but if the majority of the people of this country came to that conclusion, that objection would cease?—I think that if bi-metallism were established by law in this country and either metal made a legal tender, it certainly would be introduced into the country. Somebody would come with a quantity of it and tempt somebody who had something to sell, that man would get it, and he would go and tempt somebody else who had something to sell, and so silver would be introduced into the country.

9035. The real difficulty would be in convincing the majority of the people of this country that they ought to accept silver; once you had convinced them that silver was a good standard your difficulty would be at an end?—I do not think there would be much difficulty about it. A man would have a horse to sell, and another would say to him, "Well, what is the price of your horse?" "50*l.*" "Well, I have got "50*l.* in silver for you; you can have it if you like." I think rather than not sell his horse he would take the "50*l.*" in silver. And he would have "50*l.*" in silver, and he would go to his baker to pay his baker's bill, 20*l.* The baker might say, "I do not want all this silver." The man would say, "I have got nothing else." And the baker would take it. The baker would give some to the miller, and the miller some to the farmer, and so on, I should think.

9036. (*Mr. Montagu.*) Might I ask you, with regard to the legal difficulties that you apprehend through contracts being made for payment in gold, whether you are aware that abroad, especially in Italy, where bills are occasionally drawn and accepted payable in gold, such payments in gold cannot be legally enforced?—No.

9037. Do you know whether it is the same in any other countries abroad?—I do not know. I did not know it was the case in Italy.

9038. Then for all commercial purposes would it not be sufficient to engage to pay in legal tender?—Certainly, it would. There would be no other engagement it seems to me.

9039. It is stated that bankers might refuse to discount bills unless their customer agreed to repay them in gold. Do you think it at all likely that such bankers would engage to repay all the money deposited with them in gold?—I suppose that would depend upon what their customers insisted upon. If their customers insisted upon an undertaking to pay in gold, I suppose bankers, like other commercial people, might engage to do so. They would be very glad to have the option, no doubt.

9040. (*Chairman.*) Would not there be likely to be competition enough amongst the bankers to prevent that being done?—I think it is extremely likely. It was not my suggestion, mind you.

9041. (*Mr. Montagu.*) What possible object could there be in asking for gold if silver or bank notes based upon silver or gold were legal tender?—It seems to me that the question is based upon the supposition that, notwithstanding bi-metallism, there would be an agio upon one of the metals—a premium upon one of the metals.

9042. But why should there be a premium for internal currency?—I do not know. I do not say. I think it is extremely likely that there would be, for some reason or other.

9043. Can you suggest any reason?—Yes, I can suggest this, that you have not got a sufficient agreement among the people of the whole world using the

two metals to prevent one of them being partially driven out of the country by the operation of the Gresham Law.

9044. But if you had all the great Powers agreeing, you think that that would be a sufficient agreement?—If you had all the great Powers I should think it might be; but I do not know even then, unless you include among the great Powers China and India, that it would suffice, and that even then,—well of course one cannot suppose that the value of the metals would be affected very much in Thibet and Central Africa; but I am not quite sure that there might not even then be a tendency to get gold from gold-using countries with a view to its hoarding or something or other.

9045. You would see no inconvenience in the legal tender or the bank notes being based on the silver or gold, would you?—No; bank notes based upon silver and gold are done for two objects, one is, I suppose, in order that there might be a security for their re-payment, but another was this, to keep the currency of the country constant, so that whenever you issued a thousand-pound note after the 14 millions or whatever it was, and added the thousand-pound note to the circulating medium of the country, you withdrew a thousand pounds in gold. I think that was the scheme of the Bank Act. Lord Overstone gave evidence to that effect. Certainly if bi-metallism existed I should think the principle of that measure would be infringed if you issued a thousand-pound note on a thousand pounds worth of silver, because a thousand pounds worth of silver is not part of the circulating medium. It is a chattel. It is not like gold. But if you had bi-metallism, then you might issue your notes upon silver as much as upon gold.

9046. But there would be no personal inconvenience to the public whether their five-pound notes or one-pound notes were based partly on silver and partly on gold?—I suppose not subject to the remark I made that those silver certificates really are notes; they are circulating medium and notes.

9047. You mentioned that we receive about 100,000,000*l.* sterling annually from foreign investments. Do you not see a risk affecting such investments from a further great fall of silver; that is, in silver-using countries they might not be able to pay us the gold that they have contracted to pay us?—There is that possibility, but it would not arise from the fall in the value of silver; it would arise from an appreciation of gold, which I do not believe.

9048. Supposing the railways, and the other large English investments in India, with the rupee of 1*s.* 6*d.*, may find a greater difficulty in paying the stipulated interest?—They do; they certainly find a difficulty.

9049. And if the rupee were further to decline, do you not see some risk of their not being able to pay?—I never considered that thing, but I suppose one may put it as a risk in this way: I suppose the fares and rates in rupees would not increase, and I suppose it might happen that silver would fall so that the rupees paid for the fares would not be enough to pay

the expense and leave a margin for a dividend. That is a possibility. I should like to make one remark upon that. It is impossible to say, but it does seem very much to me as though silver had come to its bearings.

9050. (*Mr. Barbour.*) Do you mean that it is not likely to fall any further?—It is not likely to fall any further. Allow me to say that I give that with the greatest distrust. I know nothing of silver mining. Let me make this remark also. Some people have been very greatly alarmed because it is said that silver can be produced at 6*d.* or 1*s.* an ounce. But it is not the cheapest-produced silver that regulates its price. It is just like the old theory of rent, you know. The poorest silver mine pays no rent. If there is any other silver mine which is of greater value than that, they do not reduce their price to the consumer of silver in consequence, but they pay rent to the owner of the mine.

9051. (*Mr. Montagu.*) There is only one more question that I will trouble you with. Sir John Lubbock made a remark with regard to the consumption of gold in the arts. Would you not think that the consumption on balance would tend to diminish because of the use of old material in re-coining. Gold does not wear out like other things, and gold chains and watch cases and such like can always be used again. Do you not see that to compensate the possibility of gold going out of use there would be all the old material available. There is very little gold absolutely wasted ever in gilding silver?—I suppose some is actually consumed, some is lost, some is worn away.

9052. Yes, but the bulk of the gold used in the arts really would accumulate?—Yes, I should think so.

9053. (*Sir John Lubbock.*) Suppose the Indian railways scarcely paid their expense owing to a fall in the rupee would not the obvious remedy be to raise the fare so that the actual revenue would be the same?—Yes, it would, certainly; that is to say you can, but then the difficulty in the way of doing that is the same difficulty is that in the way of additional taxation—that the thing has not fallen in the country.

9054. Several questions were put to you rather seeming to imply that there was a possibility of bankers in London setting themselves against the law, against the general feeling, in the matter of these payments. Have you any reason to suppose that they would be likely to do so?—I should not think so. What is my opinion worth compared with yours upon that subject?

9055. No, but several questions put to you seemed to imply that, and you have not warranted any such opinion in any way, I think?—Not the slightest.

9056. (*Sir T. Farrer.*) Are you aware that shortly after the passing of the Bland Bill, which made silver legal tender in America, the banks of New York and the Government of the country came to an agreement between them that all the dealings between them should be in gold and not in silver?—No, I was not aware of that.

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The witness withdrew.

Adjourned till Friday.

FORTIETH DAY.

Friday, 2nd December 1887.

PRESENT :

THE RIGHT HON. LORD HERSCHELL, the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.
MR. HENRY CHAPLIN, M.P.
SIR T. H. FARRER, Bart.

MR. C. W. FREMANTLE, C.B.
SIR JOHN LUBBOCK, Bart, M.P.
MR. S. MONTAGU, M.P., and

MR. GEO. H. MURRAY, *Secretary*.

MR. WILLIAM FOWLER recalled and examined.

Mr
W. Fowler
2 Dec. 1887.

9057. (*Mr. Chaplin.*) The general result, I think, of your evidence is this—or one general result—that you deny that there is any scarcity of gold, or that the fall in prices is owing in any way to that scarcity?—I have been unable to trace the connexion.

9058. And in saying that you agree with the contention of M. Cernuschi?—To that extent.

9059. You admit, do you not, that the demonetization of silver, and the refusal of the foreign mints on the Continent to go on coining silver, has, to that extent, thrown more work upon gold?—I am not sure. The effect of that operation was, I think, to lessen the demand for silver and to throw a great deal of silver on the market—that is, German silver; and at the same time, practically to take away the old demand; but as to its putting more work on gold which can be defined and measured, I do not say that it did.

9060. Is it not the fact that, prior to 1873, all the gold and all the silver that could be brought, and that was brought to those mints, was coined, and that they equally performed the functions of money?—Yes; but then you see so much depends on what you consider gold does in the matter of exchange. I have contended throughout my evidence that the function of gold was much more as a measure of value, and, what I may call a balance, than as the operator in the exchange itself. That is effected by credit; the great bulk of the transactions is done by credit and not by gold. But whatever the functions of gold were, those functions before 1873 were equally performed by gold and silver. I do not know that you can draw a very fine distinction. I understand that in Germany silver is legal tender now, and in France silver is legal tender, so that gold and silver are operating in Germany and in France now.

9061. But it is the case, I understand, that since 1873 silver is no longer freely coined on the Continent, and the work which formerly was done, partly by gold and partly by silver to that extent, now falls upon gold alone?—Yes; it is quite true, in one sense, but I can only repeat that I consider that the work performed by gold is a very small work.

9062. But whatever the work is, that is done by gold, whether it be small or whether it be great, the same amount of gold does more and goes further than it did before?—No, I do not agree with that, because you find from the returns that the amount of the reserves of gold has increased very much indeed since 1873.

9063. You mean that there has been more gold coined since then?—The amount of reserves of gold has very greatly increased since 1873.

9064. I did not perhaps explain my question quite as clearly as I ought to have done. When I said the same amount of gold, I meant that the amount of gold which comes from the mines and is coined goes further and does more work than it did before?—I do not think it would be possible exactly to define that. Each individual bit of gold tends to do less and less work from the development of credit; all over the

world, at least all over the civilised world, keeping out of view such countries as Russia.

9065. And yet I understand you to say that in addition to the work which gold did before, it now does that portion of the work which was done formerly, and would still be done by silver if it was still freely coined in the same way as gold?—Yes, if you consider that an important point, I daresay that is true, but I do not myself think it is of very great consequence.

9066. But is not that to say, that to that extent there has been a distinct appreciation of gold, although it is no scarcer than it was before?—Not a bit. I do not think it has made any appreciation at all.

9067. I think you said that you agree with M. Cernuschi in some things that he said as to the effect of the exchange?—I said that I agreed to some extent with what he said. I admit entirely that the fall in exchange does give a benefit, in certain events, to the exporter from the East, but I do not agree with the way M. Cernuschi puts it.

9068. I think your opinion upon that point was this: that the exchange did give a certain bounty to the exporter from the East?—Yes, in certain conditions of trade, I think it is so, but I may perhaps call your attention to this fact, that there are only two articles which are of any consequence exported from India which are produced in this country. Those are wheat and wool. All the other articles are not produced here to any important extent, and therefore the greater the benefit to the exporter the better for the English consumer. I think that is a very important distinction.

9069. M. Cernuschi's contention, I understand, is this, that the present state of things acts like a protective tariff against goods imported from the West into the East, and as a bounty upon goods exported from the East to the West?—Yes. It is very difficult to make that square with the facts. If it were so you ought to have an increase in the export and a decrease in the import. You have had an increase in both, and the proportionate increase of the import from England to India is greater than the increase of the export from India to England in a certain period of years. The figures are these: 1870–5 the exports from India were 285,000,000; imports into India, 161,000,000; net exports in that period, 124,000,000; 1875–80 the exports from India were 312,000,000; the imports into India, 188,000,000; net exports, exactly the same, 124,000,000; but in 1880 to 1885, when the exchange had fallen so much more, the exports from India were 411,000,000; the imports into India, 253,000,000; net exports, 158,000,000. And the five years 1880–85 show, as compared with the years 1870–75, an increase in exports from India of nearly 45 per cent., and of imports into India of more than 50 per cent.

9070. In this last pamphlet of M. Cernuschi's, at page 26, he says, "Let a bale of English merchandise be forwarded to Bombay, on which, if 10,000/

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"be not made, it is a losing affair. At the time of the bi-metallic par, with the rupee at 2s., the 10,000l. were realised if the bale sold for 100,000 rupees. With the rupee at 18d., the bale must sell for 133,000 rupees." Now if that is so, English merchandise, it seems to me, cannot be sold unless the price is increased by 33 per cent. under the present regulations?—But you forget the fact that the English merchandise has fallen in England so enormously that you are able to sell in return for the exports what you could not otherwise have sold. That is a hypothetical case. It does not deal with the facts of the situation at all.

9071. But he is taking a bale, as I understand, of English merchandise, which is now worth 10,000l. at the present price of goods in England, and he appears to me to point out that it cannot be sold in India unless the price is increased by 33 per cent.—I am not going to quarrel with anything that he says as regards this particular hypothetical case, but what I say is that the fact is that we are sending a great deal more, in spite of this fall in the exchange.

9072. But as far as the fact that he states is concerned his argument is correct?—I daresay it may be correct. I have not examined it minutely. It is a question of calculation. A certain hypothesis is laid down, and he says a certain result works out.

9073. I was anxious to get the results of your critical examination upon it?—Well, I have only this moment taken it up; I daresay it is right enough, but I do not think it has much to do with the case. We have to deal with the situation as we find it.

9074. Quite so, but assuming that argument is correct, does it not prove that a bale of English merchandise which is now worth 10,000l. at the present price of goods in England cannot be sold in India unless the price is increased by at least 33 per cent., and therefore there is a protective duty to the extent of 33 per cent.?—But the simple answer to that is, that we are sending more English goods than ever. I do not see how you get over that.

9075. You admit that it does have that effect upon his hypothesis?—If you take a certain supposition, and leave out all the other facts, you may prove almost anything.

9076. Then, would you mind going to the next paragraph at the top of page 27, where he says, "Let a bale of Indian products be forwarded from Bombay to England, on which, if 100,000 rupees be made, it is a profitable affair. At the time of the bi-metallic par, with the rupee at 2s., the bale, in order to make 100,000 rupees, had to be sold for 10,000l. With the rupee at 1s. 6d. it is enough to sell it for 7,500l.; it is quite an upset. The prices of English merchandise must be increased 33 per cent. in India and the prices of Indian products, destined for England, may be lowered 25 per cent." Indian merchandise, therefore, can be sold in England at 25 per cent. less than when the rupee was at 2s. The rupee, therefore, at 1s. 6d. does act like a bounty of 25 per cent.—I am not quite clear about that; I think it acts to a certain extent as an assistance to the exporter, and I should like to take what the Indian officials say on this subject, because they have examined it from a bi-metallic point of view, and I will read a passage in Mr. O'Connor's memorandum. He sums it up at page 4 of this paper that I have in my hands, paragraphs 15 and 16. "The exporter therefore has not gained directly by the fall in exchange, he has simply been saved from a certain portion of loss. If the exporter has gained anything, if the cultivator has received a stimulus to increased production, other causes for these facts must be looked for. These causes are to be found in the reduction of cost of transport from the field to the port of shipment, and from the port of shipment to the consuming market by the extension of railways, by reductions in railway rates of freight, and by reductions of sea freight." That is his deliberate conclusion, and he bases it upon this re-

markable fact that you see no connexion between the fall of exchange and the increase of exportation; that in the recent years, when the fall in the exchange has been the greatest, the exports have tended rather downwards, and, therefore, it is impossible to say that it acts in the way you speak of. If it were so you would have a very direct connexion so that the lower the exchange the more the export would be, but it is not so, and I do not see how you are to get over that.

9077. Then it seems to me that the only way in which you are able to meet the argument as stated by M. Cernuschi consists in the fact that the exports from England are greater than they ought to be if his argument were right?—The exports from India are less than they ought to be if his argument is correct. If his argument is correct it seems to me that the exports ought to have been a great deal larger. The true explanation may be that the prices which are the governing factor in exports and imports have much less to do with the question of the money than we suppose in our ordinary ideas about these things.

9078. Then with regard to M. Cernuschi's statement, I think I sum up your opinion correctly in saying this: that theoretically no doubt his argument is correct, but that it is not borne out by the facts which ought to have followed upon it if it is correct?—If there was nothing to control the theory which he lays down, no other factors much more important, of which he apparently has lost sight. It has always seemed to me that there was, as Mr. Bagehot pointed out before the Committee of 1876, a bounty or an encouragement, or whatever you call it, to the export, from the fact that you can get a gold price in London, with which you can buy silver cheaper than you used to buy it for remittance to India, and that there has been a fall in prices in silver in India.

9079. Then you practically admit that there is a bounty from the exchange, but you contend that, even admitting that there is a bounty, we have no right to interfere with it by creating a fictitious value of silver, and that it would be hard upon India if we were to do so?—Certainly, and we have no reason to do it for this reason, that there are only two articles to which it would have any application.

9080. And your second contention is, and I wish to examine you afterwards on both these points, if I may, that even if we did interfere as regards India, and did abolish this bounty as regards India, we could not help it as regards Russia and other countries with inconvertible notes; and that in the case of the wheat trade, at all events we should simply be transferring it from India to Russia?—Certainly.

9081. Well, I want to examine you, please, upon both of those points, for one moment. In answer to question 8381 you asked us "to consider whether, if there be an advantage to the exporter in India, it is right for us to endeavour to get rid of that advantage by raising the rupee, not by any ordinary commercial action, but by a special action of this country interfering with the natural course of commerce and creating a fictitious value for silver." I do not quite understand what you mean by creating a fictitious value?—Well, if the natural course of commerce lowers the price of silver, and you say it shall not be lowered, we will put it up, if Government can do it; that is what I call fictitious.

9082. You mean the rehabilitation of silver would be what you would call giving it a fictitious value?—Certainly. Giving it a value as near as you can, the same as it had before and which it lost, largely owing to the action of other Governments, not our Government, for we had nothing to do with it.

9083. But have not we already given gold a fictitious value in this country?—No, I do not think we have.

9084. Why are we to be said to give a fictitious value to silver if we give it a status as money by law and not to give a fictitious value when we do exactly the same thing with gold?—It is fictitious in this

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sense, that you ask us to take two metals into our standard instead of one.

9085. Then you admit that we have given a fictitious value to one?—I do not know that it is a fictitious value; but I do admit this, that if you suddenly said, you would not coin any more gold, you would probably reduce the exchangeable value of gold. Of course that stands to reason. A great country coining a metal and making it its measure of value, does give it its principal source of demand. No one can doubt that. In that sense, if you like, you may call it fictitious, only you must have something of that kind, some measure of value, or you get into utter confusion.

9086. But I still want to arrive at the distinction you draw between the right and the propriety of giving a fictitious value to gold and not giving a fictitious value to silver?—I say if the natural value of a certain thing in our commerce is a certain figure, and you say you would coin that stuff—supposing you said you would coin copper, it would give it a fictitious value. It would create a higher value than the ordinary value of the article. You are proposing to take into your standard a new metal, and you thereby make a new demand for it, which is not natural, but is fictitious.

9087. In the case of a new metal?—A new metal, and to a certain extent you do in the old, because I admit freely it is common sense that if you coin any metal and make it your measure of value, that is creating a demand for it which did not exist before. A better illustration, I freely admit, happened in 1873 when the German Government and the Latin Union altered their course of policy with regard to silver. The German Government threw a lot of silver on the market. There was no immediate sufficient demand for it, and it fell.

9088. Well, then, I think your reply comes to this: that we have an equal right to give either of these metals that value, which you call a fictitious value, but in your opinion it would not be expedient to give it that value in the case of silver?—Well, I do not use that word in any technical special way. Of course Parliament can do anything, except turn a man into a woman, and therefore it can make silver money if it likes, I quite admit that.

9089. Well, then, the second point on which I wanted to ask you was this: in answer to question 8382 you say, "Then I say if it be doubtful even if there would be a great benefit to the community, it would be extremely hard upon India to take from her any advantage that she may have." Why would it be more hard upon India to take from her that advantage which she now enjoys under this system, than to leave us in England under a disadvantage?—I am not prepared to say that it is a disadvantage.

9090. But the question was asked on the assumption that it was?—I never allow that. What I meant was this; that India in the luck of things, as it were, has obtained a certain advantage, and some people think that by that advantage she has put an extra burden upon England, and I think that it would be a serious thing for us, having regard to our duties towards India, to turn round and say, "We will take this advantage from you, because we think certain classes in our country are, to some extent, injured by it." I think it would be a very serious thing to do if that was the motive. There are other motives higher than this, about which I have nothing to say.

9091. You have always admitted that, provided that it was shown to be expedient and desirable on other grounds, these things being incidents in the transaction must be accepted?—On that supposition I would give it up.

9092. Your next point was, that even if we got rid of the difficulty in India, we could not get rid of the difficulty with regard to Russia and those countries, which have inconvertible notes. You said, "The difference would be this, instead of taking your stuff from India, which takes an enormous quantity of our productions and is part of our own territory, we should be taking the stuff from Russia, in larger

" amounts possibly, which puts very heavy duties upon our imports, and is generally not very friendly to us; and to compare the two arrangements I must prefer the present arrangement." Well, upon that I asked you, first, whether the depreciation of the rouble was not greater than the depreciation of the rupee, and you were good enough to explain to us that it was; and the depreciation of the rouble being shown to be greater than the depreciation of the rupee, I then proceeded to inquire (if the depreciation itself acted as a bounty) how it was that in the case of the country enjoying the larger bounty, the exports of wheat, which is what we are speaking of, did not exceed the exports from the country having the smaller bounty, and I quoted some figures and some returns to establish that fact. You replied that the returns to October were no criterion as regards Russia at all, and I understood you to contend, that later in the year, that is to say, in November and December, the larger amount comes in?—No, I beg pardon. A great deal comes in in the spring as soon as the Sea of Azov and the Baltic are open. Although the merchants know perfectly well what the probabilities of the crop are, the mass of the new crop of wheat does not get here till the following spring, excepting a certain portion that comes from Odessa all the year through.

9093. I got yesterday from the Custom House the returns for November, and to a certain extent they bear out what you say, because the return from Russia for November is valued by them as 420,000*l.*, as against 182,000*l.* for October?—But the real effect of Russia on the market is in the future, and a gentleman, who is the first man in the trade, said to me on Wednesday, "Russia rules the market."

9094. Of course, if your contention is correct that the figures for the present year afford no criterion of the imports from Russia, it is useless to pursue the argument; but upon the figures which are before us up to the present time at all events it would still leave that difficulty to be explained?—The real figures are: January to October 1885, 9,484,000 cwts; whole year, 11,975,000 cwts. Then you must not forget you have also Chili and Australia, which are growing countries. You have the Argentine Republic, which is rapidly advancing as a wheat-producing country, and all these countries would not be affected in any way by this change; so that all I contend is this, that you would not get rid of the competition of those countries, if you got rid of the competition of India.

9095. In the case of these other countries, at present their competition is not at all sufficient to regulate the market?—Well, I am telling you that at this moment Russia rules the market.

9096. I am speaking of those other countries. Chili brought in last year 1,700,000 cwts. and Australia brought in 738,000 cwts.?—But in 1885 Australia brought in 5½ millions, and I am not aware that the alteration proposed would affect the United States any more than that other great exporter, Canada.

9097. Is it not the natural assumption, which no one can dispute, that India sends a large quantity of wheat into the market, and she is enabled to do this in consequence of this bounty?—That raises a point of much importance. Four years ago I took great pains to investigate this question of Indian wheat and the railways, and I was a member of the Committee that sat in 1884 on that question, and I came to this conclusion, that if India were properly developed by railways nothing could prevent her from being a most important competitor in the wheat market, and I think that this question of the bounty is a very small matter compared with the development of India by railways, and unless you are prepared to say that you will not develop India for fear she should injure the wheat producers of England, my opinion is that India will have a still greater influence every year upon the wheat market of the world. At the present moment she is not so important as Russia. I did not assert or intend to assert that Russia would always rule the

market, but Russia rules the market this year and has overcome India from the circumstance that Russia had last year a most extraordinary crop of cereals.

9098. But when you say that Russia is the most important factor at the present moment, how do you establish that fact, because I do not find it at all borne out by the official returns?—The authority I have given is so high that I have not the least doubt of its accuracy. I admit that there are recent years in which Russia has stood below India, but if you take the other table that I have in my hand, the total amount that Russia has sent to all the world, the figures are not at all small. Take, for instance, the total exports of wheat from Russia in Europe:

	Cwts.
1880 - - -	19,185,303
1881 - - -	25,694,991
1882 - - -	40,071,741
1883 - - -	43,956,250
1884 - - -	35,531,250
1885 - - -	48,309,375
1886 - - -	27,853,604

(See Appendix VI.)

9099. Yes, but as regards the difficulty that you have pointed out to us, namely, that the getting rid of the alleged bounty in India would do us no good, because of larger Russian imports, I still want to know how you establish that in view of the fact which I understand you to admit, that, with a larger bounty enjoyed by Russia already, her imports have never greatly exceeded at any time, since the Indian trade really began, those of India?—It is quite true. I am not prepared to explain exactly why it has come about, but all I say is this, you have there an enormous granary of wheat, and if the effect of this change was to discourage the import of wheat from India, it would probably be to encourage the import from all these other countries which are perfectly able to send it to us. You cannot get rid of competition, and I am convinced that all you can do by the manipulation of silver will not take away the competition even of India in the wheat market.

9100. I do not think that we differ at all upon that point, but what I want to arrive at is this, is it not the case that you would take away the competition at the lowest price which is rendered possible by the alleged bounty; that is the point we want to arrive at?—I greatly doubt that. I doubt whether the bounty has anything like the effect you suppose upon prices.

9101. But you admit, I think, that it has some effect?—I think in certain states of the market it may have an effect, but a great deal will depend upon the condition of things in India itself quite independently of silver. If, for instance, you have an enormous harvest in India you might be able to send wheat at a price at which you could not send it if there was a moderate harvest, and therefore you cannot lay down a proposition that this bounty operates always with the same force. At one time it would operate much more than another, and Mr. O'Connor's opinion is that it is not an important factor at all. I am rather inclined to think more of it than Mr. O'Connor does.

9102. Would you mind reverting to M. Cernuschi's pamphlet on this very question of wheat. At the bottom of page 28 he says: "To reckon the price of Indian wheat sold in England there is no need to know what the production of that wheat costs, nor what the carriage to the shipping port costs. It is enough to know the price at which that wheat can be sold in England, and what has been laid out in maritime transport and sale expenses. Let us take the price of 33s. per quarter, maritime transport and sale expenses are known to require an outlay of 6s. per quarter." Is that a correct statement as far as you know?—I should say that was rather below the mark.

9103. Then, "Subtracting 6 from 33 there remain 27, which at the exchange of 18d. produces 18 rupees. It follows that Indian wheat can be bought

"at 18 rupees on ship at Bombay, to be sold at 33s. in England. But to make these 18 rupees, if the bi-metallic par at 2s. per quarter still existed, 36s. would be required instead of 27s. The difference, 9s., which would have to increase the selling price if the bi-metallic par had not disappeared." Now, is that a statement of fallacy, and if so, can you point it out?—It does not accord with the facts. I am entirely of opinion that if I were to argue it out on my own head I should say that there is a very considerable bounty given to the exporter from India, but I cannot make that square with what I see is going on in the imports and exports.

9104. You cannot dispute the theory, but it is not borne out by the facts?—The reason being, I apprehend, that all the facts are not taken into account.

9105. I think you said one of your objections to the adoption of the bi-metallic proposal was that you were afraid that it might raise the prices of commodities?—I do not know that I said that except as a consequence of a possible inflation. I did say that I thought there might be inflation. I am not prepared to prophesy that it would be so, but I think my general argument would be all the other way.

9106. Would the general rise in prices be necessarily an evil, in your opinion?—It all depends upon which side of the hedge you are.

9107. Taking people upon both sides of the hedge?—I am inclined to think that it is very doubtful. If I were a buyer I should think it was a bad thing.

9108. You are not prepared to assert an opinion that a rise of prices would necessarily be an evil?—It all depends, I think, upon the circumstances. I think that if a rise in prices arose as it did in 1871, 1872, 1873, in consequence of real prosperity in the country, arising from the miseries of our neighbours, I can conceive a rise in prices not injuring our own community at large; but in ordinary times I apprehend that high prices must be worse for the community than low.

9109. You may remember that in the Report of Lord Iddesleigh's Commission they assigned the fall in prices a very leading place as one of the causes of this prolonged depression?—Well, I am not prepared to agree with that.

9110. You differ from that?—I think that the process of fall is very nasty, and when you have got down to the bottom probably the country is better off. But if I am right in my view, the altering of money would not raise prices permanently, if that is what you want to do.

9111. But you have told us before that indirectly and temporarily it might?—It might; I would not prophesy about that.

9112. You have given us a great many reasons, as far as I could gather from your evidence, why there is no necessity for the adoption of bi-metallism, and why it would not have the effects that are anticipated from it, but I am not aware that you have pointed out any very special objections, except in this respect, that we are a creditor country?—Well, the first objection that I raised was that I thought it was in principle a wrong thing to try and create an equation of value between two articles; and that I was very doubtful whether it was a possible thing as a permanent matter; and one reason of that was, that this equation depends on the agreement of a number of people, and it would be very doubtful whether in the case of a real trouble that agreement would be kept, and if it was not kept it might land us in great trouble and confusion. That I think is a very important consideration. Then it seems to me that giving this value to silver—I dare not call it fictitious after what you have said—but this new value to silver might encourage silver mining and discourage gold mining very much, and lead to an excessive supply of silver, which might result in our gold going away and our becoming a mono-metallic country upon silver only. Mr. Giffen has expressed a very strong opinion to that effect. I am not going to prophesy how that would be. I should be very sorry to be so rash, but I think if it did occur it might be a very serious thing for the commerce of the

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country; and in that connexion there is another consideration which is not I think unimportant, that the Indian people are great holders of silver, both in coin and in hoards, and if they took it into their heads, in consequence of our having given silver this large value, to turn out their silver and take our gold, we should very soon be stripped of all that we have got, so that again in another way we should be a mono-metallic country upon silver. Then there is another point. I mentioned that I was excessively puzzled as to what ratio you were to adopt supposing you were to do it. M. Cernuschi seems to be indifferent. He does not care what it is, whether it is 10 or 20. Mr. Gibbs says, as I understand him, that you must go back to 15½ to 1.

9113. Pardon me for interrupting you for one moment. Those are all admirable reasons against doing it which I admitted you had already told us; but what I wanted to know was whether you could point out any positive objection or evil results likely to flow from this when once it was done. When it was done whom would it harm?—Surely those very things that I have said are some of the possible injuries; and a preliminary objection is that you cannot settle the par between yourselves.

9114. Assuming that that has been done—if it could be done—I want to know what are the evils which are likely to flow from it?—Another objection is this, that all nations cannot be included if it were done. M. Cernuschi lays that down that India ought not to be admitted; he lays that down very strongly.

9115. Why is that an objection?—It is an objection, because I think if you were going to have one money it seems strange that you should leave out a great country like India.

9116. Well, but would not the effect of the bi-metallic arrangement be universal, whether India was left out or not; assuming that the gold nations, the United States, France, Germany, and England agreed to it? Was not the effect universal before?—The value of silver no doubt was maintained steadily before, but I only mentioned that to show that these countries are and will continue to be great users of silver, and it is not necessary therefore that we should take up silver, there being an ample field for the use of silver outside. Perhaps I ought not to have mentioned that, because it is not exactly an objection, but it is rather a point showing the non-necessity of the change now proposed.

9117. I admit you have given a number of very powerful arguments against it; I only want to arrive at the possible objections when it is done?—I think also that it would tend to discourage the exports from India and thereby lessen the power of India to take our manufactures and so would materially injure a large class of our people. According to the argument that I understand you to have used to-day, you lay great stress upon this export bounty. If it be so, it leads to a considerable increase of the exports from India, and therefore a large increase in the exports from England to India, and Mr. O'Connor says if you have great export you must have great import; and that is the universal rule of commerce—goods go against goods.

9118. What you mean is this, that it would interfere with the development of India, and so far injure India as a market for us?—You would injure India and England too, because India if she did not export, could not buy. Then supposing this alteration raised prices in England largely all round, as some people think, and with many bi-metallists the great object is to raise prices, it would discourage our imports into India in another way. The reason our imports have kept up so well has been their low price, but if we are to raise prices all round we should discourage the imports into India most seriously. As I pointed out to you just now the imports into India have, notwithstanding the rate of exchange, surpassed the exports from India in the proportion of increase during recent years.

9119. (Mr. Barbour.) But if at the same time that the gold prices rose here, the exchange rose too, the

silver price of English exports to India might not rise at all, so that there would not in that case be a discouragement; that is, there could be no discouragement to exports if there was an alteration in gold prices which was not more than sufficient to balance the alteration in exchange?—I cannot tell what the alteration in prices would be. Nobody can predict that. But I suppose you are right. Then I used an argument which I think has some force. The very best authorities think that the gold is overtaking the silver in production. Some think just the other way, but if these people are right, we shall get all you want without the trouble and risk of changing the whole of our currency system. I am old enough to recollect that everybody was extremely frightened because there was so much gold, and now I have lived to see the other fright coming on about too much silver. Then I am extremely doubtful whether the commercial community would accept the change—that is to say, you would have England doing what America is doing now—making bargains in gold. That is my impression. Mr. Currie said he was certain that that would be the case with him. Then if we were drained of all our gold, I think it might lead to most serious commercial disasters in our own country from alarm and panic. There is no country in the world which does such an enormous business with such a small basis of cash as we do. I gave you the figures of the circulation of 1845 and 1885 last time, and they are most extraordinary, showing how rapidly our business has advanced with hardly any increase in our cash, and therefore, anything that we did in the way of altering our currency which might have a tendency to create alarm, is, in my opinion, a most serious matter. Then I mentioned the view, that if the pound no longer meant so much gold, but meant gold or silver at the option of the payer, our commercial position would be seriously endangered as the great settlers of the business of the world; and I also referred to the position of England as a creditor nation.

9120. Why should we lose our commercial position?—I do not say we should lose it; I think there is danger. It might not have any effect; I am not going to prophesy, but it is one of those things that I do not feel comfortable about.

9121. Do you hold that our financial supremacy and our commercial position are a consequence of our having the gold standard?—I do not say that; but it is one of the things that has assisted; that everybody all the world over has known exactly what a pound has meant for the last 70 years.

9122. (Sir John Lubbock.) And would there not be a further fear that if we made one alteration we might proceed to make others also?—Of course there would.

9123. (Sir T. Farrer.) I propose to sum up the very valuable evidence you have given us, by asking you questions in the order in which they are put to us by our instructions so as to see what your answers to those questions would be. You are aware that we are instructed to inquire:—First, whether the changes in the relative values of the precious metals are due to the depreciation of silver, or to the appreciation of gold, or to both; and what are the causes of such depreciation or appreciation. Secondly, what is the effect of these changes on India or the United Kingdom. And, thirdly, if there are evils proved, then to inquire whether any and what remedies can be adopted?—Yes.

9124. First, as regards the depreciation of silver; is it not the case that when silver first began to fall attention was directed to the increase in the production of silver from the mines: to the diminution in the demand for silver caused by the demonetization of silver in Germany, and to the refusal of the Latin Union to coin silver. Is that not so?—It is so, but I should say, to make the matter quite clear, that in the debate in the House of Commons on the 12th June 1879 Mr. Goschen denied that there was up to that time any serious increase in the supply of silver.

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9125. Did not these circumstances, or some of them, naturally lead to the conclusion that silver was falling as compared both with gold and with goods in consequence of increase in the supply and failure in the European demand for silver?—Yes, that was the impression, but my impression has been for a long time, especially since I read that debate, that the real cause was, that a considerable amount of silver was at once thrown upon a market where the old demand had been practically destroyed.

9126. Did not Mr. Bagehot and other economists say that the effect of this would be that silver would go to the East in increased quantities as it had done in former times; that export from India would for the time be stimulated, and imports into India for the time discouraged; that silver prices in India would rise; that the disturbance would be temporary; and that when prices were adjusted in India things would go on as before?—Yes, but Mr. Bagehot forgot one point; or rather he did not foresee what has happened since, that the prices of goods here have fallen enormously.

9127. Does not the reasoning on which these predictions were based appear to be satisfactory, assuming the premises to be true and complete?—Yes, that is so.

9128. But as matter of fact, though silver has gone to India, it has not gone in any abnormal quantities; exports from India do not appear by the returns to have been more stimulated than imports; silver prices in India have not risen but have fallen; and the fall in exchange has continued?—Yes, but the reason I think that silver has not gone in such large quantity is that owing to the fall in prices here of goods generally sent to India, our goods have gone instead of silver to a very large extent. That is to say, if we had not had this heavy fall we should have had a great amount more silver sent to India, so that you have had two things, the large drafts by the Home Government upon India which have checked the export of silver to India and also very large exports of our goods to India, which would not have gone had it not been for the heavy fall in prices.

9129. But the facts that I have mentioned seem to disprove the hypothesis that the changes in the relative value of the precious metals are chiefly or entirely due to a depreciation in silver alone?—Certainly.

9130. But whilst this is so does it not remain true, that the causes above mentioned are real causes for the lowered gold price of silver, though they do not account for the whole of the phenomena?—Yes.

9131. And you think it probable—I think you have just said so—that the operation of these causes has been aggravated by the increase of Council bills which check the demand of silver for India?—Yes, certainly.

9132. Well, then, to turn to the other alternative mentioned in our instructions, the appreciation of gold; if the depreciation of silver alone is not enough to account for the facts, are we not driven to inquire whether the changes in the relation between gold and silver are due to the appreciation of gold. Strictly speaking, appreciation of gold and fall of gold prices are the same thing, are they not?—They are as matter of language.

9133. But appreciation of gold may mean a general and uniform appreciation as compared with all other things, and in using the terms as identical do you not think that care must be taken not to assume a general and uniform fall of prices where no such fall has been proved?—Certainly.

9134. May not a fall in the gold price of any given article be due to either of two causes, namely, to a change in the demand for and supply of the article itself, or a change in the demand for or supply of gold?—Yes, and I have tried to prove that in all the cases which have been analysed, the fall has arisen from the change in the demand for and supply of the article.

9135. Well then we come to what you think to be the cause of the actual fall in prices. It is alleged that a fall in prices has taken place since 1873, which

date is taken because it was the time at which the so-called demonetization of silver took effect. Are there not other causes in the period 1871, 1872, 1873, which make it difficult to take the level of prices of those years as a fair datum or average level?—Yes. I think it is a very important consideration for the Commission to bear in mind, and I should very strongly recommend some reference to the articles at the end of 1872 and the beginning of 1873 in the "Economist," where the writer in the first place proved, I think, that there was no depreciation of gold up to the end of 1872, although there was such a great rise in prices. That was proved from the condition of the coinage of the country. Then there being no depreciation, he was inclined to think, writing in January 1873, that things would go on pretty quietly. But what happened was very curious. In the autumn of 1873 came a terrible American panic, the worst that has occurred there since 1842. That had a very depressing effect on credit, and on commerce generally. America did not recover from that till 1878—five years practically. Well, then, in 1875 we had one of the worst sets of failures that I ever recollect in London, also very greatly damaging credit; and, if my argument about the effect of credit on prices is correct, tending to lower prices very much. Then we come to 1878, when we had another tremendous set of failures, the City of Glasgow Bank, the West of England Bank, and a number of others, and if we had actually been short of gold we should have had a panic. But the Bank rate never rose beyond six per cent., though during that whole time credit was very much affected; but after the recovery of America from her depression we had a considerable advance in prices for a short time, and then we went back again to the low level of prices of which so much complaint has been made. I think the situation in 1873 was most peculiar, and there was a great amount of accumulated loanable capital after the panic of 1866 which led to a great rise in prices, and a great excitement in business, especially also increased by the war of 1870, and the great profits that resulted to England from that war. I should like to read a few lines from page 3 of the "Economist" of January 1873: "The amount of unused savings which accumulated after 1866 was much greater than at any previous period. And to this accumulation was added the stimulus given by long continued cheap corn; the greatest stimulus known to industry. The result was our past prosperity; that this country went forward, not by steps, but by 'leaps and bounds.' . . . The premature rise in the rate of discount has arrested the periodical turn. It has prevented our lending too much money to trade, or our lending it badly; it has restrained, by a constant and healthy apprehension, the stimulated energies of trade; and therefore we look forward to 1873 without apprehension." The point is this: Mr. Soetbeer calls this the swindling period, the period of 1871 to 1873; the period of intense excitement which led to an enormous advance in prices. Then I mentioned just now there were after that time many causes, apart from money, which naturally led to a rapid fall.

9136. You admit, I think, that a fall is proved to have taken place since 1873 in the wholesale gold prices of many, if not most, of the great articles of commerce?—Yes, but there are very considerable exceptions, as I have mentioned in my evidence.

9137. But you do not admit that the fall has been proved to extend to all classes of things for which gold prices are paid, as for instance to land, to services of various kinds, and many other things?—Certainly not.

9138. And as regards the articles contained in the different lists of wholesale prices, you do not admit that the different lists which have been laid before us, namely, from the "Economist," from Dr. Soetbeer and others, coincide with one another?—No, I do not necessarily.

9139. You have also stated that their lists contain

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a number of articles of very different character; that whilst many have fallen, some are stationary and some have risen; and that most of them are known to be affected by special causes; and you have also pointed out, that to average such prices; to draw curves from them purporting to represent a general level of prices at different times; and to derive from them conclusions as to a general and uniform fall of prices, much more as to one single cause of fall, is fallacious and misleading?—Certainly.

9140. You have told us that with respect to most of the articles comprised in these lists there are special reasons in the supply of and the demand for these articles themselves which fully account for the fall in price, apart from any scarcity of gold?—Yes, certainly. Let me add one word. I mentioned when I was here on the 7th November the article of copper. It has risen since I was here from about 44l. to 66l. a ton, and sugar, as I understand, has risen in about two months something like 25 per cent., so that we really need not be in despair of ever getting prices up, if we are so anxious that they should rise.

9141. You have given us details concerning the special causes for fall of price of many of these articles, and for further details you have referred us to several publications, your own pamphlet, Mr. Forsell's pamphlet, Mr. Laughlin's article in the "Boston Journal of Economics," and above all Mr. D. A. Wells' recent articles in the "Contemporary Review"?—Certainly.

9142. Generally speaking these causes consist in new inventions and improvements in machinery, in improved cultivation and in increased production, in the cheapening and shortening of transport by land and sea, in the increased rapidity of communication by letter and telegraph, and in less costly modes of doing business?—Yes, certainly.

9143. You think further that partly owing to the greater development of inventions, partly to the cessation of the great wars of the previous decades, these causes have had a fuller and greater effect since 1872 than they had before?—Certainly.

9144. You think that these causes are amply sufficient to account for the falls in wholesale prices which have occurred since 1873?—Yes, I do, adding also those considerations which I have just now mentioned as to the peculiar condition of credit in the period between 1873 and 1880.

9145. (*Mr. Barbour.*) But do you think that there has been any deficiency of credit since 1879 or 1880 up to the present date?—No, I do not say there has been any special deficiency of credit since 1880, but I do not think credit is anything like as good as it was in times long past; there has been far more disposition to scrutinize paper and to look carefully after everybody's transactions since the panic of 1866.

9146. (*Sir T. Farrer.*) You also think that the differences in the changes of prices of the different articles, which as you say correspond wherever, they can be traced, to the special circumstances of the article, show that the fall has in each case been due to these circumstances, and not to any general cause such as the scarcity of gold?—Certainly.

9147. Then, to turn to the abundance or scarcity of gold. Considering the amount of gold added to the world's store between 1850 and the present time; considering that it is the whole stock of available gold, and not merely the annual produce of the mines which constitutes the supply of gold for currency purposes; and considering the economies of gold currency in the modern commerce of the western world on the one hand; and comparing these facts with the demands for gold since 1870, on the other hand, you say, I think, that there is not the least reason for supposing that the demand for gold for currency purposes has outrun the supply?—Yes. There is a figure I should like to mention in Soetbeer. He sums up the reserves of gold at the end of the years 1872 to 1885, so far as the returns have been made, and I should like you to note 1881 and 1885. In 1881 he makes them 170,000,000*l.* and only four years after 220,000,000*l.*

9148. Well, now to turn to the relation of gold to prices in wholesale dealings, little or no gold is used, is that not so?—Yes, I mentioned when I was here something about the development of credit in our own country. I was talking to a country banker the other day and he told me that where a few years ago on a market day he could turn out 5,000*l.* of his own notes he cannot now get rid of 1,000*l.*, though his business has increased, so universal is the system of cheques.

9149. Well, these wholesale dealings—it is wholesale prices we have been speaking of—are affected by credit and these credits are settled by a set-off against one another without the use of gold?—Yes.

9150. In fact does not each transaction create its own circulating medium, so that the medium expands with the demand?—Yes, that is true.

9151. Consequently cannot great additional business be carried on with little or no additional need of gold?—Practically gold is unseen in what is called business.

9152. And dealings of all kinds which in simpler states of commerce were carried on by the actual use and transfer of the precious metals are now carried on in Europe and America, at any rate, without using gold at all?—Yes.

9153. Is not this economy of gold a process still in course of development and capable of further extension?—I think so; very decidedly.

9154. At the same time is not gold still the measure of value; and are not all prices and all instruments of credit expressed in terms of gold?—Yes.

9155. Is it not also the basis of all credit, or, to drop metaphor, is not every instrument of credit a promise or obligation to pay in gold?—Yes.

9156. But in the course of ordinary business these promises are seldom enforced or expected to be enforced. That is so, is it not?—Yes.

9157. Still, though not enforced, does not the obligation remain; is it not this obligation the one thing which keeps credit sound; and is not a certain quantity of gold in certain events required to discharge such obligations?—Yes, certainly; that is the great reason, as I understand it, why we have reserves in gold, reserves not very large, it is true, but still considered to be sufficient so long as credit is maintained.

9158. Reserves are kept in the banks to meet these special requirements?—Yes.

9159. When these reserves run low is not the acknowledged means of maintaining and renewing them the raising the rate of discount?—Yes, certainly; the whole idea, as I understand it, of raising the rate of discount, is that there is a deficiency of gold—practically of currency, which is based upon gold, for the purpose of doing the business of the time. Demands come for gold from abroad, and it has to be sent away. That leads to a reduction of the banking reserves of the Bank of England, and the Bank gets alarmed and raises its rate, and thereby attracts gold from other countries with more or less success.

9160. Well, then, is not the rate of interest or discount in such cases the price paid for the use of gold?—It is the price paid for the use of loanable capital; it is the same thing as saying it is the price for the use of gold.

9161. Is not the existence of a low rate of discount, in other words, of an easy money market, other things remaining the same, an evidence of cheap loanable capital, and is not the tendency of this to encourage speculation, to stimulate credit, and to raise prices; and is not the tendency of a high rate of discount, other things remaining the same, the reverse?—It is so, but one could point out cases where you have had a very high rate of discount and high prices, and you have had a very low rate of discount and low prices.

9162. Is not this relation of the gold reserves to the rate of discount and of credit to prices the only clear relation known to exist between gold and wholesale prices?—Yes; so far as I know it is so.

9163. If therefore the gold reserves have been full, and if the money market has been easy at one time as compared with another time, is it not evidence that

trade has not been suffering from want of gold at the former time more than at the latter time?—I should say so.

9164. You have given us figures to show that since 1873 the reserves have been fuller, and also that the rate of discount has been lower and less fluctuating than either had been in the periods immediately succeeding the gold discoveries and preceding 1873?—Certainly.

9165. You think, therefore, do you not, that this shows that whatever may have been the cause of the depressed trade or low prices since 1873, it is not due to a scarcity of loanable capital or of the gold which is the basis of that capital?—Certainly.

9166. Whatever may be the differing relations between gold, loanable capital, credit, and prices, one thing is not possible, namely, that low prices should be due to a deficiency of gold at a time when, in the only reservoirs and channels through which gold affects prices, there is known to be abundance of gold?—Certainly that is my view.

9167. Whether, therefore, we look to the real causes of the fall in wholesale prices since 1873; to the stocks of gold in the trading world; or to the demands on those stocks as shown by the state of bank reserves and the money market, do you not think that there is strong, if not overwhelming, evidence for believing that there has been no appreciation of gold due to an increase of demand for gold out of proportion to the supply, and for concluding that the fall in the gold value of silver cannot be due to this cause?—That is my strong impression.

9168. May I not sum up what you have said on the subject of depreciation of silver and appreciation of gold as follows. First, that though there may have been depreciation of silver arising from an increase of supply of and diminution of demand for silver—this alone is not sufficient to account for the phenomena. And secondly, that whilst there may have been appreciation of gold in the sense of a fall of many gold prices, there has been no appreciation of gold arising from a scarcity of gold—in other words, there has been no diminution in the proportion of the supply of gold to the demand for gold?—Yes.

9169. Does not this lead us to the conclusion, speaking with all due reserve on so difficult a subject, that the most probable answer to the first question referred to us is as follows:—There has been a depreciation of silver arising from the proportion of the demand to the supply having diminished?—Yes.

9170. There has been an appreciation of gold when compared both with silver and with many or most wholesale goods; but this has not been caused by a diminution in the proportion of the supply of gold to the demand for it, but as regards silver by the depreciation of silver above referred to, and as regards goods by an increase and cheapening in the production and transport and exchange of the goods?—Yes, certainly.

9171. Have not these two forces acted simultaneously but independently of each other, and without being intensified or in any way affected by changes gold?—Yes, I think so.

9172. If these are sound conclusions, shall we not find that they throw great light on the further questions that remain to be answered?—I believe they do.

9173. To turn now to the second point of our inquiry. We are asked to inquire what is the effect of the change in the relative values of the precious metals on various matters of practical business connected with India. First, as regards the Government; you admit, I think, that in respect of the payments which the Government of India has to make on old or fixed contracts, it is put to much inconvenience by having to spend a larger quantity of rupees in purchasing its gold remittances; and also by the uncertainty in the present state of exchange as to what the remittances may be?—Yes, I agree with that.

9174. You also admit that this inconvenience may amount to a serious difficulty, and even possible danger,

if under the peculiar circumstances of India the Indian Government have to increase taxation for the purpose of meeting loss by exchange?—That is my impression, and I should like to read a few lines from Mr. Cross's speech on 12 June 1879 as regards that. "India sent us a very large quantity of surplus products. She sent us nearly 20,000,000*l.* a year more than we send her in merchandise. Where India would take, had she her own way, the returns in silver, salt, and shirtings, we force her to take all kinds of things that she did not want. We made her take expensive soldiers, and still more expensive civilians, and we made her pay for absentee soldiers who never went near her. He was not blaming in particular Government. He had shown that in 1868 the home payments amounted to a sum equal to 43½ per cent. of the land revenue, and that in 1879 they required a sum equal to the whole net land revenue. This showed an increase of annual charge upon India of 104,000,000 rupees in 11 years." I was sorry to see the other day there seems to be some probability of a famine in Burmah, which is another illustration of the heavy expense we incur by annexation. Not that I am going to argue here and now against the annexation of Burmah, but it is an illustration of the great danger and expenses we incur by the development of our empire in comparison with which this loss by exchange seems to me quite unimportant.

9175. As regards the country of India, as distinguished from the Government, do you think that India as a debtor country suffers, or that England as a creditor country, gains unjustly by the increased cost in goods or in silver of the gold debt. Let me explain what I mean. Is it not the fact that if India has had more to pay, she has had more to pay with?—Yes, I think she has.

9176. Is not this argument supported by the fact that India's power of producing goods has been largely increased by the loans for railway and other purposes which England has made to her?—Yes. I have always thought that although there is a great deal said about this tribute, and the very heavy charges upon the Indian people, India has been an enormous gainer by what we have done, which is represented by the money on which she has to pay interest. It seems to me there can be no question about it, and if, for instance, you take the railways—and leave out what may be called the war railways—this outlay has been astonishingly successful, and in the present condition of the world India would have had no chance of competing with the other great producing countries in the markets of the world, had she not had someone to find capital to make her railways.

9177. As regards gold payments by the Government of India on new or current contracts, do you think the Indian Government suffers any loss?—No, they gain.

9178. If the fall in silver is accompanied by an equal or greater fall in gold prices of the articles which the Indian Government is buying, that Government, if it has to pay more rupees for the same amount of gold, also gets more goods for the same amount of gold?—Certainly; there is no doubt about that whatever. Of course it is clear, as regards what she buys in England, railway materials and such things, she benefits very much by the fall in prices.

9179. Are not the goods which the Indian Government buys in England, such as railway material, stores, &c., things the gold price of which has fallen largely?—Yes.

9180. The next point we are instructed to consider is the case of the persons in India who have to make remittances in gold. You will agree that they all obtain less gold for the same number of rupees. So far as they spend it on things which have not fallen in gold prices, are they not real losers?—They are real losers in this way, that when a man gets his salary in rupees, and he wants to spend money in

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England, he must turn it into gold, and must lose by that.

9181. If the things which they buy have fallen in gold price as much as the silver, they are not then losers?—They would not be losers then. Take education: that is a thing that has increased in cost. Notwithstanding all the fall in prices, I suppose we should say that it was more costly than it was 20 years ago. The officials are certainly losers by the present condition of things.

9182. Well then, does not this explain the case of the Indian Government servants? Is it not probable that many of their expenses, such as house rent, wages, and education, have not fallen as much as silver; and to this extent will they not be real losers?—In some of those cases there has been a rise in cost, not a fall.

9183. Well then, the next case we are instructed to consider, is that of producers in India. You have, I think, stated, that you believe the fall in exchange has given some stimulus or bounty to production in India, but that in the presence of far more important facts, it is not such as permanently or seriously to injure the trade?—Yes, I think I have explained very fully my view in answer to Mr. Chaplin. I do wish to insist most particularly on the consideration that as far as I can discover from Mr. O'Connor's enumeration of the principal exports, there are only two (that is wheat and wool) where India sends things that we grow in any quantity, and as regards the case of wool I should like to give the figures of the amount sent by the British East India possessions compared with the total of our importation of wool. Our total importation of wool in the year 1886 was 596,000,000 pounds, and from our British possessions in the East Indies, put as a whole, there was only 34,000,000 pounds out of that total.

9184. You are aware that Mr. Secretary Manning stated in his last report to Congress that the fall in exchange had lowered the price of American and European wheat by 25 per cent., and that this statement has been repeated frequently in this country and in France?—Yes, I am aware of that, but I am not prepared to admit it. I quite think this, that so far forth as there is an increase in the export of wheat, or wool, or anything else to this side, it does tend of course to reduce the price here; so far forth as there is an increase arising from this condition of the exchange, but, how far that goes is another question.

9185. (Mr. Chaplin.) But I suppose you admit that the bounty, as you have described it, has an effect in lowering the price?—I say so far as it tends to increase the quantity that comes from the East, but I have endeavoured to point out that that only applies in any important sense, to two articles, wheat and wool.

9186. You do not admit it to the extent named by Mr. Manning, but you do admit it to some extent?—I do not think anybody knows how much exactly it is.

9187. (Sir T. Farrer.) You will admit that any complaint of this kind from an interest suffering as English agriculture is now suffering deserves most respectful attention, and that it is important to ascertain with as much precision as possible what truth there is in the allegation?—Yes, certainly.

9188. It is obvious, is it not, that if the gold price of American, Russian, or Australian, which had fallen in Liverpool, and the silver price of wheat in India had not fallen, Indian wheat could not have been sold in Liverpool without a fall in the gold price of silver?—Certainly.

9189. To this extent therefore is it not clear that the fall in exchange did enable the Indian wheat growers to compete with American and other wheat in the English market, and of course with English wheat too?—Yes, there are cases that we have discussed this morning where they, at any rate, avoided a loss.

9190–1. Unless silver had fallen he would have had that burden upon him?—Unless the wheat had fallen

in India very heavily he might have had a loss but for the fall in silver.

9192. But is it not quite another question whether the fall in silver was the true and original cause of the fall in wheat?—Certainly; it is quite another question.

9193. According to your opinion the improvement in production and transport from America and elsewhere were the real causes of that fall. And are you of opinion that similar causes operated on Indian wheat?—Yes, I have explained that, I think, very minutely.

9194. Has the fall in the price of wheat been shown to be much, if at all, greater than the fall in the cost of transport?—No, Mr. O'Connor thinks not. He puts that forward very prominently. I had a conversation with an Indian merchant in Manchester some days ago and he said that the fall in the railway rates in the last few years has been very large indeed, and I think some evidence has been given before this Commission upon that point. Mr. O'Connor has set forth, I think, in his paper some very remarkable reductions in railway rates at the bottom of page 55, and on page 56. I need not read all of them. I do not say that is the only cause, but it is one of the causes; and the fall of freights has been of course enormous.

9195. I gather that according to the hypothesis which you think most probable, gold has remained stationary, the gold price of wheat has fallen from causes which affect wheat; and at the same time the gold price of silver has fallen from causes which affect silver?—Yes, certainly, I think that the silver has fallen from one cause, and wheat and other things have fallen from other causes.

9196. (Mr. Barbour.) What are the causes of the fall of silver, increased production, and reduced demand?—I believe there has been an increased production in the last few years, but up to 1879 Mr. Goschen, after a most careful analysis, denied that there was a sufficient increase in the supply to account for it.

9197. The causes for the fall of silver are increased production of silver in recent years, and reduced demand for it?—A reduced demand arising from the operation of Germany and the Latin Union.

9198. (Sir T. Farrer.) If I have stated your hypothesis correctly, is not the fall in the price of silver a collateral circumstance, so that silver has happened to fall at the same time as wheat?—Yes.

9199. May not the fact that the silver price of wheat in India has fallen, in other words, that the gold price of wheat has fallen much more than the gold price of silver owing to diminution in the cost of production and transport in India, be looked on as confirming this view?—I think it does.

9200. In Mr. O'Connor's last report on the trade of India, I find this passage: "In the period between December 1881 and December 1885, the silver price of wheat in Calcutta fell 21 per cent.; in London it fell 32 per cent., while the fall in exchange was only 11·4 per cent."—Yes, I read that passage.

9201. You will agree, I think, that it is very difficult to give accurate figures of comparative prices, and that in taking Mr. O'Connor's or any other figures of silver prices in India and gold prices in London we cannot expect absolute accuracy or even consistency?—Certainly.

9202. Allowing for this, and taking his figures as an illustration of what may have happened, is not the most probable explanation of them as follows, namely, that between 1881 and 1885 Indian wheat as well as all other wheat fell in gold price in the London market 32 per cent. from causes affecting wheat. During the same time silver fell in gold price from 11½ per cent. from causes affecting silver. The two falls, though independent, were simultaneous?—Yes.

9203. The silver price of wheat in India during the same time fell 20 per cent. from causes affecting wheat?—Yes.

9204. And the gold price of silver fell during the same time 11½ per cent. Consequently the whole

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fall of 30 per cent. in the gold price of wheat, though due to causes affecting wheat alone, is exhibited in 20 per cent. fall in the silver given for the wheat plus $11\frac{1}{4}$ per cent. in the gold given for the silver. That is a theoretical explanation?—Yes, it is a plausible explanation, and very likely perfectly correct, but it is subject to the important consideration that I think I mentioned just now, that there may be many causes at work as regards the price of wheat in India that we do not here thoroughly appreciate.

9205. I am giving that only as a possible theoretical explanation of a somewhat hypothetical difficulty?—Yes.

9206. If silver had never fallen, or if we could now by a fiat do away with the fall in silver and restore the rupee to 2s. or 1s. 10d., would not the effect be, in raising the exchange, to lower the silver price of wheat in India to the same extent?—Yes; as a matter of theory, assuming that the exchange has the effect upon prices which is supposed.

9207. You agree that this would be the case upon the hypothesis which attributes so much importance to exchanges?—It might be so, but it might not be so if there were special causes in the condition of wheat in India to counteract it.

9208. Quite so, I am eliminating the case of exchange and putting that by itself?—Because I do not put such stress upon the money question as many people do as regards prices.

9209. I wish to put this suggestion upon the hypothesis that the fall in exchange has affected prices in the manner and to the extent suggested in some of the questions put to you. Upon that hypothesis raising the exchange again would lower the silver price to the same extent?—Other things being equal.

9210. But unfortunately they never are?—Unfortunately they never are.

9211. (Mr. Barbour.) Would you not say that what must happen is this, either the gold price of wheat must rise or the silver price must fall, or the trade will stop, or partly the one result and partly the other will follow?—Quite so.

9212. (Sir T. Farrer.) If so the gold price of Indian wheat would remain what it is now, as far as the exchange is concerned?—You know of course if silver had not fallen here, prices in silver in India would have fallen far more than they have done; supposing there had been a gold currency in India they would have fallen, I suppose.

9213. (Mr. Barbour.) If the old rate of exchange had been maintained, either silver prices in India must have gone down, or gold prices in England must have risen or partly the one result and partly the other result must have followed?—All things being equal.

9214. (Sir T. Farrer.) In short, is not the exchange the mode by which gold and silver prices which are media of exchange adapt themselves to real values, and are not these values created by quite other factors?—Well, I think these values are created by quite other factors, and the exchange probably is, as you say, the adjuster, but with all due qualification as regards other circumstances.

9215. Is not any attempt to alter real values by altering the exchanges like attempting to alter the trade between two countries by altering the yard measure or the pound weight?—I think so.

9216. But since fluctuations in real values exhibit themselves in the exchanges, is it not natural for persons who are dealing with exchange to attribute to it consequences which are really due to some other cause, and of which exchange is only the symptom?—Yes, that is quite true.

9217. (Mr. Chaplin.) The great fall in the price of wheat I think you said was since 1884?—Yes, I believe that is correct.

9218. And it is concurrently with that large fall that the largest importations that have ever been sent from India have taken place?—I have not got the exact figures before me at the moment.

9219. Well, I find that in 1883 there were 11,000,000 cwts.; in 1884 nearly 8,000,000 cwts.; in

1885 nearly 12,000,000 cwts.; and in 1886 11,000,000 cwts.?—That is only to the United Kingdom, is it not?

9220. And during these years since 1884 it is the fact, I think, that the fall in the cost of transport has been comparatively small?—So you informed me; I was not aware of that before.

9221. (Sir T. Farrer.) To return from this digression to the main argument. Have you looked at Mr. O'Connor's report above referred to, and especially at the figures which he gives, showing the fall in the gold and silver prices of Indian exports?—Yes, I have.

9222. Do not these figures confirm the views you have expressed throughout, viz., that the changes in price of each article depend upon circumstances connected with the supply and demand for each article rather than in currency?—He gives the fall of prices in Europe, and then he gives a number of the falls in India, and there seems to be no kind of relation. Wheat has fallen largely, linseed has gone up, rape seed has fallen 21, hides 13, indigo has risen 7, jute 18, shellac has fallen 41, rice actually rose 30 per cent. in India.

9223. (Mr. Barbour.) In what part of India has rice risen 30 per cent.?—Calcutta rice 30, Rangoon 15 (Bengal rice in England had gone down 18), silk fell 21, and in England 40, tea 10 in India and 34 in England. I think these figures again strongly illustrate what I believe to be the fact, that prices in India in silver, and in England in gold are mainly dependent upon the conditions of the articles and not upon these money questions.

9224. (Sir T. Farrer.) If this is the true view of the exchanges and their effect on price, can any permanent or serious change in real value of wheat or anything else be effected by alterations in the relative values of gold and silver?—No, except so far of course as I have admitted, that Governments do sometimes interfere with the natural course of events and cause confusion and disturbance.

9225. Do you agree with Mr. O'Connor in the paper above referred to when he argues that a low exchange does not specially stimulate Indian trade or Indian exports, and that the low exchange has really operated merely to counterbalance the loss to Indian trade which would have resulted from low prices, subject to what you have said?—I have explained all that to Mr. Chaplin, I think. I take a rather stronger view than Mr. O'Connor as to the possible effect of the exchange.

9226. You agree with him to a great extent, but not entirely, on the question of a supposed bounty or stimulus. But do you agree with him at all when he says "that the heavy fall in prices, and the low exchange, are both of them the outcome of one cause, viz., the appreciation of gold," supposing by that he means the appreciation arising from scarcity?—No.

9227. I gather from what you have said that whilst you agree in many of his arguments you think that both the lower gold price of silver and the lower gold price of Indian goods are due to causes affecting the silver and the goods respectively, and not to appreciation or scarcity of gold?—Yes, I do.

9228. Mr. Schmidt says in a paper which he has laid before us, and which he has supported in evidence: "Sufficient stress seems scarcely to have been laid on the fact that the appreciation of gold is the result, primarily, not so much of actual scarcity of that metal as of the effect of the fall in the gold price of silver on general gold prices, of the dislocation of the par of exchange, which up to 1873 existed between the East and West. Owing to the fall in the price of silver (in gold) the produce of the East could be shipped to the gold countries at lower gold prices. The production of the West, on the other hand, did not command higher silver prices in the East, for the purchasing power of silver, as regards commodities, remained unimpaired. As a result, prices in gold countries gave way all round. The purchasing power of gold was altered. This connexion between the purchasing power of

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"gold and the price of silver accounts for the fact that the curve which describes the movement of the price of silver is very similar to that which describes the movement of the 'index numbers.' Retail prices and prices regulated by custom will have to follow similar movements at a greater or smaller distance. The appreciation of gold is specific. It has been suggested in examination that the rise in the purchasing power of gold really represents only a generally cheaper production of commodities, owing to better machinery, lower charges of transport, &c., and that the price of silver being shaped by like influences, has followed a similar course. This can be proved to be erroneous, for it is a well-known fact that if silver undergoes a sudden considerable rise or fall, the same movement will at once communicate itself to a number of articles which in their turn will move other articles in the same direction?" I want to ask you, do you agree with that? No, as I have said before, I go with him to this extent, that so far as the fall in exchange has increased exports from India, it will of course have tended to reduce prices here of the articles thus exported, but I wish again to impress upon the Commission how unimportant that is practically when we consider that a great part of the articles are not produced in this country at all.

9229. (*Mr. Barbour.*) But do you think the fall in exchange would have any effect in reducing the gold price of articles which are commonly exported to silver countries, because the fall in exchange having taken place, either you must sell the article for a larger silver price, or accept a lower gold price?—I am only dealing here with what he says in this paper.

9230. But I think Mr. Schmidt does deal with the question to which I refer. He says the fall in silver causes a fall in gold prices of all articles exported to the silver countries, because they cannot be sold for higher silver prices, and that the people in the silver country will not give a higher price?—I have not gone into it from that point of view. It is conceivable, but I am dealing with exports from India which we have been talking about to-day. I find there is only one practically which can be affected by it; the other articles are those we consume, and raw materials, like cotton.

9231. Do you think the fall in exchange would have any effect as regards the gold prices of articles exported from the gold to the silver countries?—I do not think it would.

9232. (*Sir T. Farrer.*) Do you think it possible upon any intelligible hypothesis concerning the appreciation of gold or the depreciation of silver that a change in the relative value of the two metals which form the media of exchange can have any such effect on the trade between gold and silver using countries as Mr. Schmidt suggests?—I do not.

9233. On the hypothesis that silver alone has depreciated from causes affecting silver, would not silver, as Mr. Bagehot suggested, go to the East, until prices were adjusted, and would not the effect be temporary?—Yes, but I have mentioned where I think Mr. Bagehot was mistaken—not mistaken, perhaps, but failed to prophesy what has since happened.

9234. He expected other things to be equal, and other things were not equal?—Yes.

9235. (*Mr. Barbour.*) Do you think he was wrong in assuming that the cause of the fall was a very large supply of silver in the market?—I do not think he was right upon that. He thought, no doubt, that the German sales were more important than they really were. Mr. Goschen pointed that out in his speech very strongly, that there had been great exaggeration about that. To that extent I agree with you, that I think possibly Mr. Bagehot exaggerated the influence of the German sales, but you must always remember in these questions of prices it is the moral effect as well as the mere quantity. If you go into the Stock Exchange and want to sell a very small quantity of a thing nobody wants, the price goes down exceedingly without any change in the intrinsic value of the thing.

So this silver was thrown on the market and there was no demand—or at any rate a lessened demand at the moment, because the Latin Union began to fight shy of silver.

9236. (*Sir T. Farrer.*) To return to Mr. Schmidt's hypothesis. Does it not seem probable that such views as those expressed by him are due to a notion that though silver does not go to India in abnormal quantities, it can continue to be of one value measured in goods in Europe, and of a different value measured in the same goods in India?—Yes, he appears to have that idea; I do not share it with him.

9237. And such a thing is not possible, is it?—It could not last.

9238. It has been alleged that the Indian ryot has an advantage because his rent, or land-tax, is a fixed payment in silver, and he can detain silver more cheaply. Do you agree in this?—Yes, I think that is so.

9239. If and so far as this goes, is it not in effect a lightening of taxation, a sort of transfer from the Indian Government, which wants the silver taxes to buy gold with, to its taxpayers?—Yes, I think that is so.

9240. (*Sir John Lubbock.*) Do you think that there is any other point of view in which the fall in silver has benefited the Indian wheat producer beyond the lightening of his fixed charges?—It has benefited him if there has been any kind of bounty given to the export of wheat, and it has, therefore, increased the price which the dealer can give him for his wheat. Mr. O'Connor says that is not so; that prices have fallen in India as well as here, and that the cultivator is not getting more since the fall in exchange than he was before. That is what he says, but of course if it is a fact that you get a higher price at the port for the wheat than you could have got before the fall in exchange, one would suppose that the cultivator would get some benefit from it.

9241. But you yourself do not say that he derives any advantage, except that which he derives from the lightening of his fixed charges?—I think so far as there is a bounty upon the exports of the goods which he produces he has an advantage.

9242. I thought you said in your previous answer—perhaps I did not quite follow it—that so far as you are concerned, not being specially conversant with that trade, you did not see that there was any such bounty?—I did not say that. I have all along thought as a matter of theory that there would be something in the shape of a bounty, but the figures as regards export prove that there is no clear connexion between the fall in exchange and the increase in the export.

9243. Could you explain to the Commission in what manner the fall in the exchange, apart from the diminution in the actual weight of a fixed charge, acts as a bounty?—Well, I speak with great deference not being in the trade, but it seemed to me in this way, that if a man in India sells his stuff for a gold price, and with that gold price can buy silver at a much lower rate than he could formerly buy it, and then having transmitted the silver to India there is a fall in prices in India, so that he can buy more of most articles with each rupee than he could before, such a state of things must, I should say, tend to give an encouragement to the exporter.

9244. When you speak of a fall do you mean a fall during the operation?—I mean to say this, that in London you can buy silver for 1s. 6d. that used to cost you 2s. Well, then with a given amount, say 30s., you can buy more rupees now than you could before for 30s., and these rupees you can transmit to India, and then the curious point is, that though silver is so plentiful in India, and such an enormous quantity is sent, prices have fallen in India as a rule, so that each rupee that you have obtained for your wheat will buy more of most things than it would have done 10 years ago.

9245. (*Mr. Chaplin.*) That is to say, you get more rupees for the same quantity of wheat, and they buy

more than they did before?—That apparently is so on the face of it.

9246. (*Sir John Lubbock.*) Then your argument is, as I understand, that the prices have not yet adjusted themselves?—They have not adjusted themselves.

9247. (*Mr. Chaplin.*) What you say then amounts to this, that although the Indian producer gets a lower price for his wheat in England, he does get for it as many rupees as he did before, and those rupees are appreciated and buy even more than they did?—So I am informed.

9248. What you have been stating on the subject of bounty is theoretical?—Yes, theoretical and does not agree with the facts.

9249. (*Sir T. Farrer.*) Now let us turn to the facts. If the fall in exchange had the effects which have been attributed to it, would not you expect to find these effects in these statistics of trade. You would find, would you not, fluctuations of exports from silver money countries corresponding in some degree to fluctuations in exchange?—Yes, I think I have explained that several times.

9250. Well, looking to the figures given by Mr. Waterfield and Mr. O'Connor, do any such fluctuations exist?—No.

9251. There is no correspondence between the fall in exchange and the exports from silver-using countries?—I am not sure that I quoted the figures, but they are really worth mentioning from Mr. O'Connor's paper. They are so important. The exchange fell specially in 1884–85 and 1885–86, and the total exports from India in 1884–85 were minus 5·6 on 1883–4 and the increase of exports in 1885–6 was only ·5 of 1.

9252. (*Mr. Barbour.*) Could you give the imports?—I do not know that I have the imports at this moment.

9253. (*Sir T. Farrer.*) Do not these considerations fortify you in the view to which you have attached so much importance that real values, and the real terms of barter of goods between nations, depend upon causes affecting the supply and demand for the articles, and not upon currency, and that the effect of fluctuations in exchange upon these terms is temporary and comparatively unimportant?—I think most strongly.

9254. The next class of persons to whom our attention is directed are the merchants of India. I suppose you will admit that one additional element of speculation is introduced into their business by fluctuations in exchange?—Yes; but you hear the most contradictory statements upon that subject. Mr. Goschen very strongly urged upon the House to remember that these fluctuations in exchange were nothing like as important, as a matter of business, as some people made out, that you could do very large business with the countries where the exchange is very fluctuating, and it is quite absurd to say that business is at a standstill because of the condition of exchange. The figures that I have quoted about the imports and exports show that it is not so as regards India, and we know very well that a very large business is done with South America, Austria, Russia, and all these countries, notwithstanding a very fluctuating exchange. I have heard some gentlemen in the trade speak very warmly as to the inconvenience of the present system; others deny that there is any difficulty, and say, like Mr. Bythell, for instance, that they are perfectly able to settle their transactions without interfering with business. Mr. Goschen says there is no doubt that these fluctuations have been troublesome, but nothing more: “I do not wish to minimise these causes for regret; if, on the other hand, I call attention to the fact that this country has continually done a prosperous business with countries subject to no less violent fluctuations in their exchanges. Look at the trade with the United States when gold was at an immense, but ever varying, premium. Look at the Russian exchanges, utterly without stability; at the Austrian exchanges. Yet England has not failed to do good

“business with such countries nevertheless.” (*Speech of 12th June 1879 in House of Commons.*) He might have added something about South America.

9255. Then the next class of people are the taxpayers of India. The effect of the fall in exchange on the taxpayers of India is involved in what you have already said about the Government and ryots of India. Have you anything to add?—I have not; I think I have mentioned that several times.

9256. Then it has been alleged that the fall in the fluctuations of silver increases the difficulty of investing in silver countries. What do you say to this?—Of course there is a difficulty. People say, “We will get back our interest in silver, and therefore we are rather afraid about our capital, but where there is a real profit to be made the money goes.” You have a remarkable example in the profits recently made from the nitrate business of Chili, spite of the great depression of the dollar as against gold, so that the railway company has to remit gold at a heavy loss.

9257. Then the next class of people are the English merchants in trade with India. Their case is substantially the same as that of the Indian merchant who trades with England. Have you anything to add?—There is a great difference of opinion. I am not in the trade, and I do not want to give evidence on anything that I have not personally to do with.

9258. As regards the manufacturer or producer at home who trades with India, is not his case the converse of that of the Indian producer, and will not the same arguments apply *mutatis mutandis*?—As far as that goes anything which increases the exports from India to England is very favourable to the manufacturer in England, because it ought to increase the imports into India.

9259. That does not include the production of food, I suppose, in which the English producer is in direct competition with the Indian producer?—I am speaking of what is ordinarily spoken of as a manufacturer.

9260. You are aware that we have had much evidence to show that Lancashire is losing and India is gaining the manufacture of coarse cotton yarn and probably also of coarse woven cotton goods. I gather from your general evidence that you would attribute this to the special circumstances of the manufacture, and not to exchange?—That is my impression very strongly, but the peculiar position of India gives her that great advantage as regards that trade, and not the exchange. At the same time, I quite agree that there may be, in certain cases, greater convenience for India in dealing with a silver-using country than for England.

9261. Then the next point referred to us is the effect of the fall in exchange on the trade and industry of the United Kingdom, and I think you are of an opinion that speaking generally the fall in the gold price of silver has had no such bad effects as have been attributed to it?—I cannot see it.

9262. As regards the trade of the United Kingdom with India and other silver money countries, do the statistics afford any evidence that this trade has been injured, diminished, or interrupted by the fall in exchange?—I have not seen them.

9263. Do not the statistics, so far as they go, point in an opposite direction?—I think they do.

9264. Do you, under these circumstances, think in the terms of our instructions, that the changes in the values of the precious metals are not causing permanent or important evils or inconveniences to any of the interests above referred to?—No, I think I explained that in my answer to Mr. Barbour.

9265. We are instructed, in the next place, if permanent or important evils or inconveniences are proved, to inquire whether remedies can be suggested which would be effectual in removing or palliating them without injustice to other interests, and without causing other evils or inconveniences equally great. I gather that you think that the evils or inconveniences of the present state of things have been much exaggerated, and that they do not call for serious changes or questionable remedies?—Yes.

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9266. Some minor remedies have been suggested, such as the adoption of 1*l.* notes, and the abolition of the silver duty and of compulsory hall marking; but as they have not been inquired into, I will only ask you whether you are not a strong advocate for 1*l.* notes?—I am; I think it is very important to avoid the wear and tear of sovereigns. Nothing can do it so well as that.

9267. The remedy which has been hitherto urged on us is the adoption of bi-metallism in this country in concert with other trading nations. That you are quite aware of?—Yes.

9268. Is not the special ratio to be adopted of the very essence of this question?—Certainly.

9269. Many witnesses have urged bi-metallism but have refused to say what the ratio should be; is not this, in your opinion, to evade one of the vital points involved?—I think it is.

9270. The old ratio of 15½ to 1, or the market ratio for the time being, are the two alternatives generally suggested. Am I not right in saying that you object altogether to the ratio of 15½ to 1, as a compulsory alteration of existing engagements by authority of British law?—Well, I object to it, but I am a good deal puzzled, because I find one authority on one side and another on the other. So far as I can see, it would be a very awkward thing to change the existing value by a sudden process of law.

9271. Do you not also object to it on the ground that England being a creditor country, and her debts being chiefly gold debts, England would in adopting it be sacrificing gratuitously what is her just due?—Yes.

9272. Would bi-metallism at the market ratio view for the time being be open to these objections?—Not to all of them.

9273. You admit that the experience of the action of France and other bi-metallic nations down to 1873 and of the small variation in this ratio down to that time, is strong evidence from experience to show that by a concert among nations, especially if England were to join, a tolerably steady ratio might be maintained in future?—Subject to what I have so fully explained both the other day and to-day, that I would not pledge myself to say that it would be steady, I think it might be.

9274. Is it not the theory of bi-metallism, that if every one has the option of paying either in silver or gold money at a fixed ratio, and has also power to convert silver or gold into money, debtors will pay in the money cheapest to them for the time being, and that they will in so doing so raise the demand for the cheaper metal as to prevent it from parting company with the dearer metal?—Yes.

9275. In fact, does not this theory and the so-called Gresham Law on which it is founded, rest on the generalisation that of two courses men will choose the cheaper? May we not admit that this generalisation is, on the whole, a sound one?—It has great exceptions, I think.

9276. On the other hand, is not there also much truth in the generalisation, which is relied on by the opponents of bi-metallism, "that it is impossible by law to determine the value of one thing in terms of another"?—I have explained my view about that, I think.

9277. You think there is considerable force in that?—Yes, I do.

9278. Is it perfectly certain that men will always choose the cheaper coin in which to pay their debts?—It is generally so, but I do not think it is always so.

9279. I am aware that the authority of Lord Liverpool and of the great authorities who have followed him has been questioned, as I believe without good reason. But is it not the fact that according to Lord Liverpool the people of England at a time when silver had been the ordinary money, insisted on receiving and paying their debts in gold coin at a higher ratio than that fixed by law; that they did this in spite of efforts by the Government and Parliament to keep up silver; and that the legal ratio only became the practical and popular ratio when, under the advice of

Sir Isaac Newton, the Government altered the legal ratio and effected a compromise between the two?—I believe it is true.

9280. Is it not also the case that in California, when the United States Congress made greenbacks the legal tender, the Californians insisted on making their contracts, and on paying and receiving in gold, and did keep and still keep gold as their medium of exchange?—Yes, they do.

9281. Is it not also the case that after the passing of the Bland Bill which made silver tender the banks of New York and the Government agreed that their dealings should be in gold?—Yes.

9282. Do not such cases as these show that there is or may be something which determines men's actions, over and above the consideration of "which" is the cheapest?—Undoubtedly, that is so; it was in California.

9283. To apply this to the present question is it, or is it not, possible or probable that the merchants and bankers of the City of London might, if a bi-metallic ratio were adopted by Parliament, come to a determination only to buy and sell, lend or borrow, in terms of gold?—Yes.

9284. If so, might not the practice of the City be at variance with law and great confusion be the consequence?—Certainly.

9285. Are you able to speak with any confidence what the feeling of the City would be on the question of adopting bi-metallism?—Well, I cannot speak off hand upon that, but my impression is that it would be very unfavourable.

9286. Again, is it not the case that England and America are the only two nations in which gold is treated on a purely commercial footing; and that other nations, whatever their legal currency or their law of legal tender, do hoard gold, or make difficulties in paying drafts in gold?—Yes, I believe that is so.

9287. Have we any security that they will not do this in the future?—None.

9288. It is not possible to foresee what might be the results to our business, if they were to act in this way, and if we were at the same time bound by an agreement with them to coin and pay and receive gold and silver promiscuously?—Yes, but it would be, I suppose, something like a breach of agreement if they did it.

9289. But one for which it would be very difficult to find a remedy?—There would be no remedy unless you had a war.

9290. Is it not possible that under such circumstances the arrangement might break down with worse consequences, in the way of fluctuations in values to our trade than are likely to happen under our present system?—I think I have explained my view on that.

9291. Is it possible to foresee with any degree of certainty what the consequences would be?—That is exactly why I object to it.

9292. As regards the effect on trade and on prices, you have said that the Act of 1844 was a disappointment to its promoters. Were they not some of the ablest financiers and statesmen we have possessed, and is not this a warning not to take a leap in the dark?—Yes, I think I explained in my first day's evidence the reason why that disappointment arose, viz., that they made too much of the bank note question in dealing with the Act of 1844.

9293. We have been told that London is at present the financial centre of the world. Some witnesses have told us that in their opinion this supremacy rests on peace, security, and good government. Others have told us that it is intimately connected with our system of currency and finance, and on the certainty that a commercial contract to pay in gold in London will be performed, and they think that this supremacy might be endangered if we were to alter the character of the terms in which these contracts are made. To which of these opinions do you incline?—I incline to the latter.

9294. On the whole I gather your opinion to be that the alleged evils and inconveniences of the

difference in values of gold and silver do not exist, or, that if they exist, they are of no great importance; that the remedy I suggested, of adopting a bi-metallic ratio, if at $15\frac{1}{2}$ to 1, would be attended with injustice and evil; that no bi-metallic ratio would produce the advantages expected from it; and that the results of adopting it, and consequent hazards to our trade, are too great to justify its adoption, unless on much stronger grounds than have hitherto been shown?—That is generally the result and the conclusion I have come to.

9295. (*Mr. Barbour.*) You said, I think, that your view was this, that gold had not appreciated, but that silver had depreciated, from natural causes, that is, from increased production and reduced demand?—Yes.

9296. And that commodities have fallen in gold price simply because of cheaper and larger productions of commodities?—I think so, generally.

9297. Do you think that there is anything in the nature of things that prevents gold from appreciating or depreciating?—No, I do not know that there is.

9298. It is possible?—It is conceivable; but of course the way which gold is used, as a coined metal, has a powerful influence upon its condition.

9299. In the way of preventing any material change of value?—Yes.

9300. But I suppose the way in which silver is used, as the standard over certainly the larger portion of the world, has some effect, too, in that direction?—Certainly.

9301. But you think the reduced demand for silver, and the increased production of it, have depreciated it?—Well, whether they permanently depreciated it, I am not at all clear.

9302. Well, for the time being?—For the time being they have depreciated it here, in Europe, but not in India, so far as I can understand.

9303. But do you think it is possible for an article like silver, that is easily carried, to be depreciated—in one portion of the world, and not depreciated in the other when there is close commercial intercourse between the two places?—The figures look like it.

9304. Why do you think that the increased production of silver has tended towards depreciation, and the reduced production of gold has not tended towards appreciation of gold?—There you come upon the old question. After all, as regards gold, the production is reduced no doubt; but, on the other side, gold is less and less required for the purposes of business. I suppose that the value of gold in exchange, is maintained by its being, used by such a large number of nations as the coin of those nations, and I think that any change in the supply, in any moderate space of time, having regard to the fact that the mass of gold is never used up, but is kept in the reserves of banks and otherwise, is utterly unimportant. It is conceivable that if you had a long course of years with an enormously diminished supply, compared to the old supplies that the world had, some change might arise; but at present this is not the case, and all the evidence that we have is that, notwithstanding the diminished supply, we have been able to pile up larger reserves than ever.

9305. But does not the same argument apply, to a very great extent, to silver. Silver is not used up, but is very largely used as coin. Has the increased production of silver been sufficient to produce this great effect?—Undoubtedly that is so; but of course you had a very peculiar state of things in 1873 with regard to silver.

9306. But does that peculiar state of things exist in the present day?—You have still in this sense, that you have got an increased supply of silver from the mines since about 1880–81. They say they have an increased supply, and at present Europe does not incline to take more silver than she did. The demand for the East is still large—very large.

9307. Then as regards the question of demand, you say rightly enough, that there is a reduced demand for silver, but has there not been an increased demand

for gold?—I doubt very much whether there has been an increased demand for gold, except in this sense, that certain nations have taken the gold, and thus have had large hoards of gold; but I do not think their getting large reserves of gold is taking it out of circulation, and destroying the gold. It is in reserve. They have issued notes on it.

9308. If the Americans, using paper before, resolved to go upon a gold basis, and to accumulate gold, surely that is an increased demand for it, though it might not raise the value very greatly?—But they issue notes upon that gold.

9309. But if they had not gone on a gold basis, that gold might have been in Europe somewhere?—I have often thought that if America had not taken to gold we should have been very much bothered with an excessive supply of gold.

9310. Then you seem to think that the additional demand for gold merely swallowed up what we may call the superfluous supply of gold, that there was too much before that demand arose?—The increase, as you know, of gold during the years from 1848 to, we will say, 1870, was something enormous.

9311. I am aware of that; but you would not say that there was too much gold in the world at present. Would it be an evil, if there was gold enough in the world to put Russia, and Austria, and Italy on a gold basis, without lowering prices?—I am not prepared to say that. I have no prejudice, either against gold or silver.

9312. (*Mr. Montagu.*) I asked you at a former sitting if you could obtain any estimate of the loss imposed upon the trading classes by the undue raising of the bank rate of discount for the special purpose of attracting gold, say by 1 per cent. for three months. Have you formed any opinion as to the amount of such loss?—I have found it impossible.

9313. Mr. Giffen writes to me that he thinks the bills afloat at one time do not exceed 300,000,000*l.* Would not a rise in the discount of 1 per cent., for three months, represent a loss of 750,000*l.*; and would not that loss fall mainly upon the trading classes?—Well, if you assume all those facts.

9314. Besides that loss, is there not a very large amount advanced by bankers, in the United Kingdom, on loans to traders, and would not such a rise in the bank rate increase that charge?—Certainly.

9315. The Bank of England, in order to attract gold, raised the rate on the 3rd of August from 2 to 3 per cent., and on September the 1st, from 3 to 4 per cent., which is its present rate. Has that action attracted gold?—I have seen it stated that it is a very small sum which has come.

9316. On August the 3rd, the total amount of gold was 20,964,534*l.*; on December 1st it was 20,352,622*l.*, or about 600,000*l.* less. Allowing for the gold, which will shortly return from Scotland, has there not been a very small amount of gold, if any, attracted on balance from abroad?—I should think it had been quite small.

9317. Do you not consider that the loss inflicted upon the trading classes by a rise of 2 per cent. in the bank rate, for over three months, would exceed 1,000,000*l.* sterling?—Well, it all depends. I do not believe in the estimate of 300,000,000*l.* of bills. I do not think anybody knows anything about it.

9318. Does not a higher rate for money tend to depress values and diminish the profits on our home and foreign trade, and in the latter case would not advantage be given to our foreign competitors who work with cheaper money?—Provided they do; if you assume that they do.

9319. Those competitors who work with cheaper money?—Certainly, if they do, of course.

9320. Is it not a high price to pay for the purpose of attracting a million or two of gold, which has in the present instance been ineffectual, owing to European competition for gold?—Well, there you see you raise the point which I referred to in my first day's examination. I think, and I have always

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thought, that having regard to our enormous operations, we keep too small a reserve.

9321. Are you not of opinion that the fall of the rupee from 1s. 11d. to 1s. 5d. has on the whole been of advantage to India?—I think the balance of evidence goes to show that the low silver is beneficial to the mass of the people of India.

9322. Do you think that a further fall, say to one shilling, would also be advantageous to India?—I cannot say.

9323. You stated that the fall in roubles facilitated the export from Russia of wheat and oats. Do you believe that this depreciation of the currency is an advantage to Russia?—I never said so.

9324. You do not consider it an advantage?—Well, you have to take so many things into consideration, before you say it is an advantage, because there is the credit of the nation and other things to be considered before you arrive at a conclusion, as to what is a general advantage; but you may have an advantage to certain classes of exporters, and an injury to the people.

9325. Do you think that inconvertible paper currency is ever of advantage to the country?—I have said once before that I look upon it with horror.

9326. Is not the Indian currency depreciated; and can a depreciated currency be a disadvantage to Russia, and an advantage to India?—It depends so much upon circumstances. The depreciation of silver, I think, from all I can learn, is a benefit to the masses of the people of India, but an injury to the Government and to the official classes. It is possible that the state of things in Russia may benefit the mass of the people. I do not know, but looking to the credit of the nation, I should not advocate any such change, any depreciation of the currency.

9327. And do you think that an inconvertible paper currency can be an advantage to the masses of the country?—I do not say that it can, but you see you have got to take into account all the circumstances of the case. It may be an advantage, for instance, to-day, and may cause a very great loss a few years hence, by some international difficulty arising out of that inconvertible currency.

9328. Then you would say that an inconvertible paper currency, as a permanency, would be a disadvantage to the country?—It certainly must cause, I should think, on the whole, great injury to a country.

9329. Then is not the Indian currency inconvertible?—It is a metal currency.

9330. Is not the Indian currency inconvertible. Could India sell any considerable portion of her currency?—I do not think that is a practical question at all, because no country ever tries to sell the whole of its currency.

9331. Could India use her silver in payment to any other country outside India?—No, I do not suppose she would, unless it was a silver-using country.

9332. But apart from that, therefore, internationally the currency of India and China would be inconvertible?—Well, the only way of removing that difficulty would be to give her a gold currency.

9333. But at present her currency, therefore, is inconvertible, the same as the paper currency would be?—I do not think that it is at all the same as a paper currency.

9334. If it cannot be converted or used?—I cannot assume off-hand that it can never be used.

9335. With regard to Russia, how is it that the exports of wheat from Russia have not largely increased during the many years during which the rouble has been low, and been so large as to rule the market?—Well, that, I think, arises from the general cause I have referred to, that the condition of the markets depends upon the supply of the article, not upon the question of the rouble.

9336. And should increased export of wheat occur in Russia, would not the paper rouble rise in value?—It has not done in recent years with an increased

export, that I can see. For instance, it remains stationary in 1883, 1884, and 1885, with a great change in the export.

9337. It would tend to increase the value of the rouble?—Well, it should do.

9338. If, therefore, Russia were to, as you suggest, rule the wheat market, as a necessity the rouble would be enhanced in value?—It ought to be, but it depends entirely upon what amount they have got out.

9339. Well, the information already given is that the amount is kept within reasonable bounds, and even diminished?—It depends upon what you call reasonable bounds. I have got the amount of notes here, it is an enormous amount.

9340. About 80 or 90 millions sterling, the entire currency of Russia, and notes?—Yes, but then only consider what a very poor nation they are.

9341. Would not therefore they require more currency?—No, I do not think they would. The great mass of the people never see that currency.

9342. You stated that the chief objection to a ratio of 20 to 1 would be that it would render permanent the loss to the Indian Government by the increased burden of its gold debt. Would not the Indian Government be benefited in two ways, that the Budget estimates could be fixed in the future with greater certainty, and that internal loans could be raised on less onerous conditions, rupee loans? Do you consider it would be prudent to invest capital largely in India, and in silver securities, such as rupee loans in the present condition of silver?—Well, that of course involves the question what the probable future of silver is to be. Now there is such a diametrical opposition amongst people as regards that question that I should hesitate to give a very strong opinion.

9343. But you, as a prudent banker, would you like to invest money largely in India and in silver-using countries in silver securities, such as rupee loans, in the present condition of silver?—Well, we bought some rupee loans not long ago.

9344. Would India be at all likely to send silver to England in exchange for gold, should the ratio be fixed at 20 to 1, when India does not do so now, when silver is discredited?—I do not know. I cannot tell. I would not give a very strong opinion upon that. I was referring more particularly to 15½ to 1 when I mentioned about their sending over their silver.

9345. There would not be the same inducement at 20 to 1?—There would not be the same inducement. You never can tell what these Indians will be at.

9346. India would not part with her currency. If silver were sent from India, before it reached Suez it would be ordered back again?—I have heard such statements made, but on the other hand I have heard extraordinary statements as to the amount of hoards held in India.

9347. Then if we did not lose our gold our supremacy would be maintained under a bi-metallic ratio?—If we did not lose our gold there would not be those dangers to which I referred, but as to the supremacy that is another question altogether.

9348. But if all the other Powers were situated in the same way as regards monetary convention, surely the supremacy of this country would be maintained?—Well, yes, if the United States and Germany and France joined, I suppose the supremacy would depend upon other factors.

9349. And in case of a bi-metallic ratio being brought into force, bank notes would be as readily taken, would they not, in this country even if based partly on silver and partly on gold?—Bank notes are out such a short time that it would not be of importance.

9350. And when you talk of engaging to pay in gold, you really mean engaging to pay in bank notes?—I do not know about that.

9351. But supposing a man accepts a bill for 1,000*l.* he does not engage to pay the 1,000*l.* at the

due date in gold; he engages to pay in bank notes?—It is gold nominally.

9352. It is engaged to be paid in legal tender, but it would be a satisfaction of his debt if he did not pay in gold, but paid in bank notes?—It would be so, no doubt.

9353. Therefore there is no such thing as an engagement in this country outside the Bank of England to pay in gold?—You have to pay nominally in gold. It is really what represents the gold.

9354. In fact nobody could insist on your paying him in gold?—Because you can tender him the notes.

9355. Can you conceive that it would be to the interest of any nation to go out of a convention of say 20 to 1?—Well, I was asked that question the other day, and I said I could not tell all the possible circumstances.

9356. Can you give me one example, where it would pay a nation to go out of such a convention as that?—I do not know, but I know that France went out of her convention practically.

9357. Was that quite the case. Did she break faith with any country?—No, she did not break faith; but the whole Latin Union broke faith with the whole world; that has caused all the trouble.

9358. But did they engage with the whole world; they engaged between themselves?—No; but they gave out that they were free coiners of silver, and then they stopped it.

9359. The reason of that was, that Germany commenced to take all the gold from France. Germany sent out silver to France to be coined, and to be exchanged into gold; and it was from ill-will to Germany, or jealousy of Germany, that France refused to continue to coin silver?—If you say so, I do not dispute it.

9360. (*Mr. Barbour.*) Do you think it would be possible to have a gold standard in India?—I do not think it would. It would cause great difficulty if you told the ryot to pay in gold.

9361. But we might use the rupees as they use the five-franc pieces in France now. We might con-

tinue the rupees as they are?—I am afraid it would be very much misunderstood. It is a very large question.

9362. A man having the rupees would pay them just as before and would not perceive any change?—I should not see any such great objection, if it can be done, but I do not see myself how it can be done, and yet maintain India as a market for silver as she is now—as full as she is now.

9363. Certainly, as a market for silver, her power would be decreased. Do you see any evil in that?—That I should think would be very objectionable and intensify the present trouble.

9364. Just as England says, "It is my business to look out for my commercial supremacy; I will have nothing to do with silver." India might say, "I act for myself, I see no reason why I should inconvenience myself to make a market for silver for the rest of the world?"—That is quite a reasonable argument, but I think it would be a very dangerous thing myself, as far as I can understand it, and I think it would be a great pity that one of the largest markets for silver should be decreased. I am not one of those who cry down silver, and say it is of no consequence.

9365. You may know that gold was at one time a legal tender in India?—Yes, I do; before 1835.

9366. So that to use gold in India would be only going back to what once existed before?—No; but they did not use gold as we use it here.

9367. They chiefly used silver, but they also used gold to some extent?—But comparatively little to what it would be now.

9368. But is it not rather hard upon India to maintain the present difficulties in order to provide a market for silver for the rest of the world?—Well, if you can show that India was very much injured by the process it might be so, but I doubt whether it is.

9369. But even if she has not been injured in the past she might be very much injured in the future?—It is conceivable in circumstances that might arise, undoubtedly.

The witness withdrew.

Adjourned till Monday.

FORTY-FIRST DAY.

Monday, 5th December 1887.

PRESENT :

THE RIGHT HON. LORD HERSCHELL, the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.

MR. J. W. BIRCH.

MR. H. CHAPLIN, M.P.

SIR T. H. FARRER, Bart.

SIR JOHN LUBBOCK, Bart., M.P.

MR. S. MONTAGU, M.P., and

MR. GEO. H. MURRAY, *Secretary*.

Mr. DANIEL WATNEY called and examined.

9370. (*Chairman.*) You have given considerable attention to the questions which have been raised in the controversy with regard to the existing condition of the currency?—Yes.

9371. And specially to the changes in the ratio of value of silver to gold, and the results which are alleged to have flowed from those changes?—Yes.

9372. Let me ask you first with regard to the suggested appreciation of gold, as having been the cause of the reduction of price which has taken place in many articles of consumption of late years. What observation have you to make with regard to that?—

My difficulty is to admit that it is a cause. The one is not the cause of the other. If you say that gold has appreciated with reference to commodities, you can only mean that commodities have gone down in price with reference to gold; you could not say that gold having gone up in value was the cause of the others going down. It is stating the same fact in two different forms.

9373. No doubt that may be so if you are speaking of a fall in the price of all commodities, but you would not say, I suppose, that the fall in the price of a single commodity, though it showed an appreciation

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of gold in relation to that commodity, showed an appreciation of gold generally?—No, of course you have to take all of them.

9374. May not one regard the matter from different points of view, that a change in the relation of commodities to gold may take place either from something affecting commodities or from something affecting gold. In either case you have a change in the relation, which may be expressed as an appreciation of gold in relation to the commodities, or an appreciation of commodities in relation to the gold; but you would admit, I suppose, that they are two different things?—If you confine me to one commodity, I should consider that that would be travelling outside the currency question altogether.

9375. You mean that there may be something in the circumstances relating to that commodity which has altered its relation to gold?—Exactly.

9376. Do you think that there has been what has been called a scarcity of gold?—I think not at all: there is ample gold in the world for all the purposes to which it need be applied, provided there is a due economy in the use of it. I think it has been used in a most improper manner, and that the demand for those uses has caused its great appreciation.

9377. Do you think that an increase of the money in circulation increases prices?—The increase of the money in circulation will create a demand for the precious metals, and if a demand for the precious metals is created, that renders them comparatively scarce, and therefore appreciates them and lowers the price of the commodities.

9378. You say an increase of the money in circulation; why should that add to the demand for the precious metals?—Assuming that we are speaking of increasing the circulation without increasing the fiduciary issue, there must be more of the precious metals used. If more is used there must be a demand for it, and that demand takes it out of the general bullion market, thereby causing a comparative scarcity. I assume that France, in comparison with England, has in circulation perhaps double the quantity of precious metals per head, and that if France were to have no more precious metals per head in circulation than England there would probably be liberated 200,000,000*l.* of precious metals, all of which would be thrown on the bullion markets of the world.

9379. What do you suppose would be the effect of that?—That would, of course, render the precious metals of less value than they are now.

9380. Those, you mean, which are the standard currency of the French nation?—In France both metals would be liberated, in what proportion I cannot tell; but on the general question I feel no sort of doubt, viewing it merely as a sum in arithmetic. If we abstract the precious metals from circulation we must throw them on the markets of the world, and that would render the precious metals comparatively cheap. On the other hand, let me take the converse of my previous proposition, and suppose that England adopt the same course which has been adopted in France, not as State policy, but as individual policy, we should then have twice as much in circulation per head as we have now. We should have to attract that money from the bullion markets of the world, and thus by creating a great demand for the precious metals we should appreciate them very considerably.

9381. In what way do you suppose an increase of the money in circulation would be produced?—It could only be produced by reducing the banking facilities now existing in the country. I should like, however, to remark that I am arguing on a supposititious case, which it is almost impossible to imagine, because by adopting such a course we should be going backwards. On the other hand, the people of France by increasing their banking facilities would much reduce their money in circulation.

9382. If you were to increase the circulation here, you say that that would only be done by a reduction of the banking facilities?—Exactly.

9383. That is to say, you mean the greater the amount of credit which is founded upon the stock of the precious metals the less the need of quantity of those precious metals?—I do not quite understand the meaning of the word credit, unless the fiduciary issue is meant, but it appears to me that the fiduciary issue is another part of the subject, and has nothing to do with banking facilities. The essential part of credit with reference to banking facilities is the credit or confidence which the customer has in his banker. It is this which liberates the coin from his strong box and brings it into the bank. My point is this: we will suppose that there are a great many banks all over England, and that there are a great number of shops which are constantly taking money over the counter. In the one case where there are banks they would take that money straight to the bank, and the moment it is taken into the bank it enters into the general circulation of the world; in other words, into what I call the bullion markets of the world; whereas, if they held it in their tills or in their strong boxes it would be just the same as hoarded coin. On the other hand, in France there are very few banking facilities, and the consequence is they are obliged to hold this stock in their houses waiting for the collector to call for it. I will admit that cheques to a certain extent assist very considerably. I do not think that cheques with reference to all that enormous number of transactions that I am now speaking of produces so great an effect as the rapid collection of the money that is taken over the counter. You cannot imagine one without the other. You cannot imagine the banking facilities without the cheques; therefore, I think they had better be always taken together.

9384. You are speaking chiefly of the effect of the coinage of the country being rapidly returned to the banks?—Yes.

9385. Instead of being kept by a vast number of people in their houses or shops?—Yes, that is what I mean by banking facilities.

9386. I observe that you have written suggesting that the view that an increase of the money in circulation raises prices is false, but I do not think you have explained to us why you maintain that?—The increase of the money in circulation will cause a demand for the precious metals, and when a demand is caused for the precious metals, they become scarce; their value appreciates and the prices of commodities go down.

9387. What is your opinion with regard to the effect of the change in the relative value of silver to gold upon the fixed payments made by the Indian Government to this country and the supposed bonus on the exportation of wheat?—Probably it would be best to treat the bonus first. It does not exist; it is a mere statement without any proof. My argument was given in a letter to the "Times" of August 10th, 1886. If permitted, I should like to read it:—

WHO GAINS BY THE CURRENCY CRISIS?

To the Editor of the "Times."

"SIR,—In my letter under this heading, which you did me the honour to insert in the 'Times' of yesterday, I left out of consideration the case of shippers to and from India, because I am of opinion it can be proved that the currency crisis does not affect them. It happens, however, that, under the heading of 'The Currency Question,' you printed in the same impression a letter from Mr. J. T. Mackenzie, in which he sums up an argument by saying that 'it is futile to contend that this state of exchanges does not greatly benefit the shipper from India, as for the same cause it is adverse to our home exports to India.' The argument is that a few years ago, when 10 rupees were equivalent to 1*l.*, a Bombay merchant shipping wheat which cost him 1,000 rupees would sell it for 100*l.* and receive back his 1,000 rupees, but that now, when making a smaller shipment, he would receive back 1,454 rupees. This might be true, if wheat retained its old price, but I

contend that the prices of most articles, including wheat and silver, as expressed in terms of gold, have receded in about the same ratio. This being so, the loss in the price of his wheat would be made up to the supposed shipper by the gain on the exchange. The same effect, *mutatis mutandis*, would be produced when goods are shipped to India. But that the question of exchange may be left out of the calculation altogether is shown by the following method of stating the case. Supposing a shipper of wheat from Bombay were to send a cargo to England with instructions to have the proceeds applied to the purchase of goods for export to India, the wheat would be sold at its present reduced price and the goods to be returned would also be purchased at an equally reduced price; so that as much goods would be sent for the wheat as would have been sent before the prices were changed. That is not an extravagant supposition, for trade being in a normal state, the exports and imports must necessarily coincide in value. It is of advantage to India that the influences arising from the present currency crisis, which are disturbing other nations, have no effect on the mutual relationship of the various classes by whom her trade is carried on. Indeed the serenity of her present condition may, in this respect, be considered almost a positive gain. Unfortunately, the Indian trade is not in a normal state, owing to the large amount of debt which is repayable, capital and interest, in gold. Of course, India exports articles, chiefly wheat, to pay its obligations. The wheat is sold at the reduced price, but no profit on exchange takes place, as the proceeds are retained here. When the price of wheat is 30s. a quarter, one-third more must be sent than when the price is 40s. Thus, so far as exports and imports balance one another, the state of the exchange produces no effect, but so far as debts are paid by exports, the low price is a grievous misfortune to India. How Mr. Mackenzie can call this misfortune a benefit surpasses my comprehension."

It will be observed that Mr. Mackenzie says:—"It is futile to contend that this state of exchanges does not greatly benefit the shipper from India, as for the same cause it is adverse to our home exports to India." In my letter I disprove both of these propositions, stating in full the argument about the bonus, but stating the converse merely under the expression *mutatis mutandis*. But there is another mode of looking at this question which may appear to some minds clearer than the foregoing: commodities, when they come from India, can be exchanged for the same quantity of silver as formerly, and this silver can purchase the same quantity of commodities to return to India as formerly. Commodities from India, however, can only be exchanged for a much smaller quantity of gold, and commodities sent in payment of debt have to be exchanged for gold. This necessitates a much larger quantity of commodities to be sent in payment of debt, and causes a corresponding loss to India.

9388. It has been suggested that the fact that the gold price of goods exported from this country to India would be necessarily lower than it would have been before is a mischief as regards this country, because it takes away the profit which is made upon the manufacture of the goods and compels or may compel a diminution of wages in this country?—The appreciation of gold is a very great disadvantage to the capitalist in this country until everything is righted; until all his obligations can be expressed in the new terms, wages among them.

9389. So that it would tend to a diminution of wages?—Eventually.

9390. What have you to say with regard to its effect upon India and Indian officials?—I think the letter I have just read sufficiently answers the question as regards India.

9391. That is the effect upon India. The Indian officials would suffer, I suppose, so far as their pensions are paid in silver, by the diminished value of

silver as compared with gold?—There is no doubt that they suffer considerably from a practical point of view. I hardly know how to give you my ideas upon that subject, for I think when things are righted it will make no difference at all. As I have said before, when everything is righted I anticipate a crisis, I cannot help saying so, I anticipate a crisis in wages, and when that takes place it will most likely be in consequence of some other crisis happening. It is a long time coming, but after it has come everything will be righted.

9392. What is suggested against that view of everything being righted is that whilst it is admitted that if silver now remains stationary in price or value everything would be righted, it is said you can never have things righted, because the price of silver is continually changing, and therefore this righting of things is continually going on, and there is no finality?—The gold price of silver has remained tolerably stationary for some considerable time, but wages have not gone down at all to correspond with the appreciation of gold, and a great many other things in like manner have not gone down. Rent has not gone down.

9393. The rent of agricultural property surely has gone down very much?—But we were not talking of agricultural property just now, I think; the subject that I had in my mind was the Anglo-Indian officials.

9394. What you mean is that all rents have not gone down?—No. There was a very clever letter, as I thought, in the *Morning Post* from Colonel Hughes-Hallett upon this subject. He said many people considered that the officials were very much worse off, with reference to their receiving pensions payable in rupees, when they had to spend the money in this country, and with reference to the money which they sent over from India for their families living in this country, but thought, with reference to all that part of their expenditure which occurred in India, that they were under no disadvantage. But Colonel Hughes-Hallett said that a great number of the articles that they required for their use in India really came from this country, that these had not gone down in price, and therefore that exactly as the exchange altered so their incomes went less far.

9395. Did he indicate what the articles were which now fetched the same gold price, and therefore a higher rupee price?—He says: "Look in any direction, crockery, glass, cutlery, plate, ornaments, books, clothing, boots, toilet materials, medicines, groceries, all liquor from whiskey upwards, saddlery, these and other things are all from England."

9396. That, of course, would be correct so far as regards all articles the gold price of which had not fallen in England?—Exactly.

9397. I observe that you object to the expression "depreciation of silver"?—Undoubtedly, because I believe silver can buy everywhere as much as ever it did, except gold.

9398. Surely not, if that statement is correct; silver will not buy as much as it did before of all the articles which are enumerated there?—No, it will not; but this is because of the extra profits made by the shopkeeper and his servants.

9399. Now is not the expression "depreciation of silver" a proper expression, inasmuch as all gold prices have not fallen?—All gold prices have not fallen, though they have almost all fallen in wholesale. Those which have not fallen give extra profit to someone. There is great tenacity in keeping up prices.

9400. Take rents, which you say have not fallen. If silver will not purchase as much of household accommodation as it did before, does it not show that silver is depreciated?—Yes, with reference to these exceptional things it is, of course.

9401. (*Mr. Barbour.*) Have you any facts to show that the rent of houses has not fallen, because it was mentioned to me a few days ago that the rents in some places had fallen very largely?—Oh, yes, some

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rents have fallen, also some wages. Those that have gone down will not have to go down when that crisis I was speaking of comes, but those that have not gone down will have to go down.

9402. (*Mr. Chaplin.*) You say that wages have fallen?—I do not think they have fallen universally, by any means. I think there is a very large fall in some.

9403. In what particular class, artisans?—Artisans have nearly the same wages now as before the appreciation of gold. This is one of the causes, I believe, perhaps the principal cause of the depression of trade. To the loss of trade caused thereby I attribute the number of men now out of employment.

9404. And agricultural labourers?—Agricultural labourers must be vastly better off than they were 20 years ago.

9405. Is that borne out by facts and evidence on the subject?—I can give no evidence as to the fact. I am merely stating what I hear is the universal belief.

9406. Are you well acquainted with the condition of agricultural labourers?—No, I do not think I am an authority on the subject. On the subject of depression of trade there is a peculiar phenomenon which has never been published by me or, so far as I believe, by anyone else. Being a creditor nation, we have been receiving interest from our debtors in goods. Let us suppose all to have been paid in wheat. The appreciation of gold caused more to be sent. The tendency of sending the increased quantity was to lower the price still further, and this lowering of price increased the debt when expressed in terms of wheat, thus causing even more to be sent. During the years when gold was going up in value, *i.e.*, until the price of wheat reached about its lowest point, this mysterious cause was being added to all other causes, and was producing a great depression of trade, in other words, was rendering trade difficult to be carried on without loss. The usual tendency is that when the price falls, it checks production. The peculiarity here is that it stimulated production.

9407. (*Chairman.*) Now, with regard to the suggested remedies, specially the remedy of bimetalism; do you think that a bimetallic arrangement such as that suggested would be beneficial?—No, certainly not.

9408. Would you give us your reasons for saying so?—Well, I suppose that in giving an answer to that question one might be allowed to consider whether the thing is possible, because if it is not possible it is hardly worth while to entertain it. Probably the first thing to know is what are the necessary conditions of the problem. I think that first of all there must be a treaty with all the coin-using nations of the world; I mean including China and India. I cannot exclude them. I know that bimetalists wish to do so, but I could not exclude them.

9409. (*Mr. Barbour.*) You speak of China as one of the coining nations of the world, but I think the Chinese Government does not issue coins at all?—Well, but they use precious metals.

9410. They use precious metals, but I think it is private individuals who use bars or pieces of silver. I think there is no mint in China?—The fact whether it is a State regulation of coinage now or not does not matter; it is private now; it may be a State regulation in five years' time.

9411. (*Chairman.*) Therefore, you include it because, if not now coining, it might coin, having a silver standard?—Yes; at any rate it uses precious metals to a very large extent; in what form it uses them I do not think is of any consequence for our present inquiry.

9412. You say that the first condition would be to get the consent of all these nations?—Of all these nations.

9413. Do you think it would not work if you excluded China and India?—Supposing that they are

now using principally silver there, and supposing that after we had started it they were to change their currency to gold, it would so completely upset the whole of the calculations that it would be impossible to conceive what the effect of it would be.

9414. The first condition is that all nations must concur; what is the next condition?—Well, of course, they would have to concur in the idea, not only of bimetalism, but also as to some ratio. I cannot imagine the ratio myself. They all say $15\frac{1}{2}$ to 1.

9415. But you do not think all nations would be likely to concur in such a ratio?—I do not see how they could at present. It seems a most extraordinary thing when the ratio is upwards of 20 to 1 that it should be changed all in a moment to $15\frac{1}{2}$ to 1. It seems a sort of arbitrary change that I cannot imagine.

9416. What is the third condition?—I consider there is a most important condition that would have to be introduced into the treaty, which would be the relative quantities of the precious metals which are to be held in every country, and a proper arrangement made so that these relative quantities should be altered from time to time as the demand for the one or the other became greater.

9417. Why do you consider that a necessary condition?—You must take care in this case that the ratio is the exact ratio, as nearly as possible the ratio that is in the market; if not, it would break down, the same as it did when Germany flooded the bullion market with silver and absorbed gold.

9418. What is suggested is that the fact that the mints of the agreeing nations coined silver or gold indiscriminately at a fixed ratio would be sufficient to maintain that ratio between the two metals?—It has failed so far, and I do not see why it should not fail again. The bimetalists assume that bimetalism caused the ratio to be moderately well maintained during the 70 years so much talked about; but they neglect to consider the extraordinary coincidences that took place during those 70 years. When the counterbalancing coincidence did not happen to arise the whole thing broke down. Who could have expected, when gold was found in large quantities in California and Australia, that France would have absorbed such an enormous quantity of it; and who could have supposed that, liberating as France did large quantities of silver, India would take that silver away?

9419. You regard the comparative fixity of the relative value of gold and silver during those 70 years, or nearly 70 years, as due to accidental circumstances, and not as the effect of the then mint regulations?—Certainly not cause and effect with reference to the mint regulations, though, of course, they assisted very much as between one time and another. I have compared that to the fly wheel of an engine. It equalises the speed between one time and another; but it has no force, no power. Bimetalism has no power; it is merely something which, by oscillating in the reverse sense to the immediate tendency, will influence changes so that they may take place quietly. It has no effect except when there are nearly equal causes operating in opposite directions; and then it would appear to the unphilosophical looker-on that neither cause was in operation.

9420. (*Mr. Chaplin.*) But it did keep the ratio quiet?—It did keep the ratio quiet within time, that is between one week and another, and I think it checked speculation which would have been a very sad thing.

9421. I understand you to say that it had the effect of keeping the ratio steady for 70 years?—No, I do not say it; I say it is stated.

9422. (*Chairman.*) You say the keeping of the ratio steady was an accident or a coincidence not dependent on the existing bimetallic regulations?—Certainly.

9423. (*Mr. Chaplin.*) You think the existing mint regulations during those 70 years had nothing to do with that?—No, I do not say they had nothing to do

with it. I think they had something to do with it; I think they kept speculation out and gave general confidence. Besides they steadied people's minds so as to prevent panic and violent fluctuations.

9424. Had they a good deal to do with it?—Very little, for their effect was only felt between short periods of time.

9425. (*Mr. Barbour.*) You compared bimetallism to the fly wheel of an engine. You would not deny that the fly wheel of an engine is a very useful thing?—Oh, no; I think bimetallism would be a most useful thing, provided it were practicable.

9426. (*Chairman.*) You have given us three necessary conditions; have you any other to add?—No, I do not think there is any other necessary condition, but if you were to have bimetallism, I have stated very clearly what an alteration it would make to contracts. I do not know whether morality would not require that every contract should be considered with a view to compensation on one side or the other.

9427. In what way do you suggest that the alteration would alter the relative situation of contracting parties?—I cannot tell you unless I know how many and what countries are to be included in the treaty. It is evidently the wish of the bimetallists to include no countries which would create a demand for gold, their object on the other hand being to substitute silver as much as possible for gold. By this process gold would fall in value and silver would rise. Perhaps the two metals would approach in value to one another till they reached a less ratio than 20 of silver to one of gold. If any such ratio should be adopted—in my opinion an idle supposition so long as China and India are left out of the treaty—debts now payable with gold would be payable with the cheaper metal. Between paying debts with a cheaper metal and with clipped coin I see no essential difference. This I consider is the object of the bimetallists, and would lead to a rise of prices which would be a corresponding benefit to debtors. I have previously said that in my opinion India and China could not be left out of the treaty, and I wish it to be understood that my arguments founded on any other basis are academic rather than practical.

9428. (*Mr. Barbour.*) Is it not an object of the bimetallists to secure a fixed par of exchange between gold and silver countries, apart from the question of raising prices?—They say that.

9429. Is not that put forward as one of the possible things?—I think it may be put forward, but we do not think very much of those little arguments.

9430. (*Chairman.*) But I understand you to say that you think that if bimetallism could be arranged it would be a good thing. I suppose the reason why you think it would be a good thing would be, not that it would raise prices, but that it would create fixity of exchange between the gold and the silver countries?—Exactly. Well, it would be comparatively fixed. Of course, you know there is no such thing as a fixed ratio possible in the world. In my published writings I have said:—"Let us imagine the great silver producing country to exist in longitude 90° west, and the great gold producing country to exist in longitude 90° east. Each precious metal would be cheaper in its own producing country than in the other. All intervening countries would be affected in like manner, though probably in a less degree." In order to fix the ratio it would be necessary to abolish interest and cost of transit by the annihilation of time and space.

9431. You would say comparative steadiness of the ratio?—Comparative. There was only comparative steadiness during the 70 years when the ratio went up to 15.83 to 1, and went down a good deal below 15½ to 1, and there were times, I believe, when in France you could not get silver change.

9432. And there were times, we have heard, when gold was at a slight premium?—Yes. I do not know whether I might, upon the points that have just been raised, suggest a consideration; supposing that

India and China were to join the bimetallic treaty, what would be the effect of it?—I think it would produce an enormous effect upon the demand for gold because they must have their proportion of gold there, the same as we should have our proportion of silver here. It would create a demand for silver here and for gold there. I do not know what it would do in the United States. They have so much silver and so much gold that possibly it would make very little difference to them. France also has a very large quantity of silver and of gold, and so has Germany. We do not know how much silver Germany has, because they do not publish the accounts, so I have been led to understand. It might very possibly happen if India and China were to be included that the demand for gold would be very much increased, and that we should have in consequence of that, instead of a rise in prices, a very considerable further reduction of prices. It is easy to determine the tendency of a certain cause to produce a certain effect, but I doubt if any man could estimate the extent of the effect of the causes now under consideration. My opinion is that the man does not live who could do it.

9433. Do you think that there are other means than bimetallism by which an economy of the use of gold might be effected, and so the suggested scarcity caused by the adoption by Germany and the United States of the gold standard be obviated?—I have suggested three. The first is the issue of 17. notes. I have not developed that idea in print, but I have made a little memorandum here of what was in my mind when I suggested it. I assume that the gold in the hands of the public, besides banks, is 75,000,000*l.* 17. notes might be issued and might come into general use to the extent of 45,000,000*l.* If they did not come into general use the whole thing would fall to the ground. All this gold would come into the issue department in exchange for the notes. Then I assume that the fiduciary issue of the bank might be increased by 15,000,000*l.*, thus leaving in the issue department 30,000,000*l.* of gold out of the 45,000,000*l.* abstracted from circulation. There would be no use, of course, for these 15,000,000*l.* of gold. The new fiduciary issue would represent it; therefore it would have to leave the country, and would be thrown on the bullion markets of the world, thus slightly perhaps inappreciably lowering the price of gold.

9434. What advantage would you gain by that?—It would have an effect, but it would be a slight effect, and I thought it proper when I was writing to state all that I could think of. I wanted to economise gold, and I thought this was a mode of economising it, and therefore I put it in.

9435. (*Mr. Barbour.*) May I ask why you wish to economise gold; with the view of raising prices?—It would have the effect of raising prices there is no doubt, though to so slight an extent as to be almost inappreciable.

9436. Is that the object?—That is one of the objects.

9437. Then you think the appreciation of gold affects us injuriously so far as it lowers prices, and your object is to obviate the effects of the appreciation of gold, and therefore to raise prices?—It would have that effect. It would be our contribution—the only one I know of that we could make by legislation.

9438. (*Chairman.*) What I understand you to suggest is this, that if the currency difficulty is to be remedied and to be met, rather than meet it by bimetallism you would meet it by the suggestions you are making?—Yes. I can quite see that people may taunt me that my wish is to get prices raised. But I think it would be perfectly legitimate, for economy can never be a wrong policy. Raising prices by economy is very different from legislating that debtors may pay in cheaper coin. Besides this it would have other effects which would benefit the country. Firstly, according to my supposition, the issue department would then hold its present 20,000,000*l.* as well as the 30,000,000*l.* withdrawn from circulation, together

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50,000,000*l.* of gold. I think this 50,000,000*l.* would be a very great evidence of strength, and would produce a considerable effect on the public mind. Such a quantity of gold could hardly be expected to fail, and would most probably take away all prospect of panic. Secondly, supposing the circulation of 1*l.* notes reached 45,000,000*l.*, of which 15,000,000*l.* were fiduciary issue, the annual gain of interest would be 540,000*l.* In my published writings I have assumed the nett expense of the note issue at 50,000*l.* a year, allowance being made for the saving of the loss by abrasion. But on these points I have no special knowledge, and only mention them in order to indicate the necessary conditions of the problem. If the issue of 1*l.* notes should cause much greater confidence to be felt by the general public thereby reducing to a *minimum* the chances of a panic, and if it should lead to a saving of 400,000*l.* a year, I could well bear the taunts of those who should say that it would also slightly raise prices. Perhaps I may be allowed to add that I do not use these figures for any other purpose than to fill up the argument, which I contend is good whatever figures are used. The conclusion is that, if 1*l.* notes are issued, it might be desirable to increase the fiduciary issue from time to time by one-third of the amount of the 1*l.* notes issued.

9439. (*Sir John Lubbock.*) Would you propose that the Bank of England should keep the numbers of the notes and keep the notes themselves as they do now with the 5*l.* notes, or do you propose that they should reissue them, or have you not gone into that?—I have not gone into that.

9440. You do not know what the cost would be?—No.

9441. Have you looked into the great forgeries of 1*l.* notes when we had them in the beginning of the century, and which led to their abandonment?—No.

9442. You have not considered those points?—I have given them consideration, and I know they are important points, but I cannot give you any evidence upon them.

9443. (*Mr. Montagu.*) You assume that there is 75,000,000*l.* of gold in circulation in Great Britain?—Yes.

9444. But are you aware that bank notes are legal tender in Ireland and Scotland, and that the 1*l.* notes exist there?—Oh, yes, I know.

9445. Therefore you take off, would you not, from your estimated circulation of gold the amount circulating in Ireland and Scotland?—Well, I do not wish to go into so much detail as that.

9446. I think that no one has proposed to issue so large an amount of 1*l.* notes. They may be issued for the convenience of those who desire them, but your proposal would be rather to force them into circulation?—Oh, no.

9447. You would hardly expect people for the sake of convenience to take so large an amount in 1*l.* notes?—They might in time. When travelling in Scotland I found a large number of 1*l.* notes. People seem to like them there, and if they liked them here they would take them.

9448. If the effect of issuing 1*l.* notes raised prices, would not that also affect contracts?—The issuing of 1*l.* notes, taken by itself, would have no effect on prices. The increase of the fiduciary issue would have the same effect as altering contracts, but the contracts would not be altered.

9449. (*Chairman.*) Your next suggested economy is an increase of banking facilities?—Yes.

9450. You anticipate that there will be increased banking facilities in foreign countries which have not adopted them so fully as we have?—Perhaps I have no right to anticipate an increase of banking facilities in foreign countries, but I am sure, if such increase were to take place, it would be a great benefit to them. If my estimate of the possibility of liberating by means of banking facilities 200,000,000*l.* from circulation in France is correct, the profit to the nation would be certainly 8,000,000*l.* a year. There might also be, I

believe, a still further increase of banking facilities in this country. The effect on prices of such transactions would be a prodigious rise, and in comparison the issue of 1*l.* notes, accompanied by an increased fiduciary issue, would be a mere bagatelle. And it should be observed that the increase of banking facilities would be carried out by the action of private individuals, and require no legislative or State action whatsoever.

9451. I think you had a third suggested economy?—Of course that does not come in the slightest degree within the power of this country; it is for other countries who have now a gold currency or a quasi-bimetallic currency to adopt a silver currency.

9452. Then you would not suggest that for us, I suppose?—Not at all; we should not do it because being a creditor nation it would be an enormous injury to us. The other countries in the world have brought this difficulty upon themselves. The United States more particularly I am thinking of.

9453. I think that covers all you have to say about economy of gold?—I think so. I may, however, add I feel perfectly certain that the United States are going to adopt a silver currency, or else the Bland Act would be a foolish thing. In fact if they had intended to adopt a silver currency, they could not have made a better preparation than by passing the Bland Act, which requires that at least 2,000,000 silver dollars should be coined every month. This has been going on for the last nine years, and is going on now. The old vaults are full, and new vaults have lately been erected in which to store the dollars.

9454. You mean that paves the way towards the adoption of a silver currency?—Yes, people say they have done it innocently, but if they had had the longest heads in the world they could not have adopted a better method.

9455. May they not have adopted it because the silver interest was strong, and those who had to sell silver were powerful?—I know that. On the other hand, it may have been in order to hide their design that they proclaimed their wish to benefit themselves.

9456. (*Mr. Barbour.*) I think one of your chief objections to bimetalism is that you could not get all the nations of the world to agree, and you could not be sure that they would keep the agreement. That is one objection?—Yes.

9457. After the principal nations of the world had agreed, India and China might become bimetallic, or might start a gold currency and create such a demand for gold as to destroy the effect of the bimetallic agreement?—When I said that I said also that I did not conceive it possible that a bimetallic treaty could be entered into unless those two countries did join.

9458. And you could not depend upon such a country as China, I suppose?—No, I could not. I do not know anything about the civilisation of China.

9459. What you propose is various measures that would effect an economy of gold?—Yes.

9460. But supposing that after these measures had been introduced, and the economy of gold had been effected, China started a gold standard, would not that swallow up all the results of the economy of gold?—Yes, it would, and we should have to take other measures for economising gold.

9461. We should be no better off than we were?—Possibly not.

9462. So that the objections to bimetalism apply also in some degree to your scheme for the economising of gold, unless you can get an understanding with all the chief Powers. And if you cannot get an understanding for bimetalism, I suppose you could not get an understanding for a scheme such as you propose?—I should not ask for it. But I think it hardly fair to call mine a "scheme" for economising gold, for my proposition of issuing 1*l.* notes and of increasing the fiduciary issue by one-third of the 1*l.* notes issued is the only one which would require legislative sanction. I have explained that it would affect the

value of gold very slightly, its chief advantages being collateral. My second proposition, as regards banking facilities, would be entirely dependent on individual effort, and yet this would be by far the most efficacious of the three. And the third, the change of the currency in the United States, from gold to silver, though within the scope of legislative action there, could not form the subject of a treaty.

9463. But if after you have effected this economy of gold Austria resumes specie payments on a gold basis, you would be no better off than you were before?—The same remark applies to Austria as to China and India.

9464. Or suppose that India adopted a gold standard, a measure which has been proposed, then that also would be sufficient to swallow up all the economy of gold?—Yes, of course, if India is stupid enough to do it; the loss to India would be stupendous.

9465. May I ask how India would lose by adopting the gold standard?—By the demand for gold that would be created. If she had a gold standard the debt would be thereby increased enormously.

9466. But suppose she adopted the gold standard at the market ratio of to-day, 20 to 1, it would leave matters very much as they are, would it not?—A gold standard is a gold standard; there is no ratio then. I do not agree that the ratio between silver and gold to-day is 20 to 1.

9467. But in changing from the present silver coins to the future gold coins, she might adopt the ratio of 20 to 1, so as not to increase the burden, you know?—You could not have a gold standard for India without having a large stock of gold in India.

9468. But there is a very large quantity of gold in India?—I know. How are you to get it?

9469. Of course there is a difficulty; I do not deny that; but India does import at the present day 3,000,000*l.* sterling worth of gold every year, and about 5,000,000*l.* worth of silver, which is mostly coined. If she adopted a gold standard, I presume, instead of importing 5,000,000*l.* worth of silver every year, she would import 5,000,000*l.* worth of gold, and coin that every year?—Possibly.

9470. Do you see any objection to that?—I think it would be a great demand on the stock of gold in the world.

9471. But if these difficulties in silver continued, India might be forced to that course in self-defence?—Forced to injure herself! forced to stab herself! I cannot imagine that. There is no reason in it. It would be the most awful catastrophe for India to have a gold standard.

9472. (*Sir T. Farrer.*) You mentioned a crisis once or twice which you thought was likely to happen. I did not quite understand what you meant that it was, or what you supposed it would arise from?—I assume that there are currency troubles in the world, and I assume that they will right themselves. As soon as all prices come to a natural level again there will be no longer any trouble, and I do not think it is likely that they will get to a natural level again without a crisis.

9473. Then do you think that the fall in prices which has occurred is due to the divergence of gold and silver?—No; not to the divergence between gold and silver. The fall in prices is a necessary coincident of the appreciation of gold. I do not see anything else. Silver is merely one of the commodities that have altered.

9474. But do you think that the appreciation of gold or the fall in prices arises from the scarcity of gold?—Not from the absolute scarcity of gold, but the scarcity of gold relatively to the use to which it is now being put, as I think, most foolishly.

9475. Then you do think that this fall in prices is due to the alteration in the relation between the demand for and the supply of gold; is due to an increased demand or a diminished supply, or both?—It is due principally to an increased demand, though, of course, it so happens that there was a reduced supply

at the same time; but that was a very small cause in comparison with the increase in the demand, because when you come to work out the figures you find that the increase of demand was prodigiously large, and the decrease of supply was comparatively small.

9476. (*Sir John Lubbock.*) Have you formed any estimate at all what the fall in prices has been, say, since 1874?—Well, I generally say 33½ per cent., but I find it is extremely difficult to arrive at anything like a precise figure.

9477. I suppose you would agree, would you not, that the demonetisation of silver by Germany and the closing of the mints by France and the Latin Union have considerably decreased the demand for, and therefore the value of, silver?—Yes, but other causes have neutralised that. Silver has not gone down in relation to commodities.

9478. But you consider that part of the fall in silver in relation to gold has been due to the demonetisation of silver by the mints of the Latin Union?—Yes; but it would be much more agreeable to me if I might put it that the cause of the great appreciation of gold is that there has been great demand for gold in the United States, Germany, and elsewhere.

9479. That was not the question I asked you. I was speaking with reference to silver. You will agree that silver has been demonetised by Germany, and the mints of the Latin Union have been closed, and the question I asked you was, whether you consider that that had had much effect on the value of silver?—So far as it put silver on to the market of course it had the effect of lowering the value of silver. It had a tendency in that direction, but as there is no actual depreciation of silver there must have been other causes to counteract it.

9480. Then do you consider that the value of silver now is what the value of silver used to be, and that the difference is owing to the appreciation of gold?—Yes.

9481. Several witnesses who have been before us have attributed part of the fall in the other commodities to the great increase in the supply, owing to diminished cost of production, cost of transport, and so on; do you doubt that?—Well, I suppose there must have been a decrease in that respect; of course there must have been a decrease of expense. I know many people who have thought that there has been over-production.

9482. But they have taken, for instance, the price of wheat, the price of sugar, the price of various other commodities, and they have pointed out the great increase in the stocks, the great increase in the supply, the greater facilities of transport, and have expressed the opinion that the fall in prices of those articles has been mainly, or perhaps even some of them entirely, due to those causes?—Well, the decreased cost of production is one thing, but the increased production or over-production I cannot imagine to exist, for I believe that in every trade now goods are going more directly to the consumer than ever they did before, and if there are fewer goods held in warehouses and so on, which I believe is the fact, there must be fewer stocks, and, in fact, even the change from sailing vessels to steam must have enormously decreased the stock of commodities in the world, and therefore I cannot see that there is any such thing as over-production.

9483. Do you mean to say that you consider that there is a smaller stock of most of the staple articles in warehouses than there was 20 years ago?—Yes; I believe so. Probably iron may be an exception.

9484. Now taking the case of sugar, there has been a very considerable fall in the price of sugar. Is it only affected owing to the appreciation of gold, and do you consider that the real value of sugar is the same as it was 15 years ago?—There is no doubt that sugar has had various causes to operate upon it.

9485. Again, take the case of wheat; do you consider that the real value of wheat is the same as it

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was?—No, I think that wheat has fallen in price more than $33\frac{1}{3}$ per cent., and I think the same with sugar.

9486. Then 33 per cent. of the fall you attribute to an increase in the value of gold, and anything over and above that to a fall in the real value of the article. Is that your contention?—It is very much like that, but I should be very sorry to pin my faith on to the 33. You see I hold that gold has appreciated with reference to silver about 28 per cent.

9487. I think you have already expressed the opinion that the ratio of silver to gold being 20 to 1, there would be great injustice in compelling those who had made contracts in silver at that ratio to fulfil contracts at the ratio of $15\frac{1}{2}$ to 1. I think you have already expressed your opinion on that?—Yes; and further I think it unjust for the Legislature to alter contracts, however or whenever made, unless compensation is made to the sufferers according to the price current on the day of the change.

9488. Supposing bimetallism were adopted with the ratio of 20 to 1, would you consider that that would have any effect upon prices?—Well, I think it would.

9489. Are you prepared to express a decided opinion upon it?—It would be a very slight alteration, because it would not be far from the market price.

9490. You think it would have an effect, but a very slight one?—Yes.

9491. (*Mr. Montagu.*) Do you say that increased circulation tends to lower prices?—Certainly.

9492. And if you increase the circulation, say, by the issue of paper or anything of that kind, would you not lower the value of money and lead to the export of gold?—If the paper were founded on gold it would be the same as gold.

9493. But would it not lower the value of money and lead to the export of gold?—You cannot increase the circulation without decreasing banking facilities.

9494. I will put it in this way, suppose 3,000,000*l.* of gold should arrive in this country and go into circulation naturally, would you not lower the value of money and lead to the exportation of gold?—There is no demand for it here; we do not want the 3,000,000*l.* of gold, and therefore as soon as it came it would go, because there is a demand for it elsewhere. It is not wanted here.

9495. But I understand you to say that increased circulation would lead to a demand for gold. Would not it lessen the demand for gold?—I do not know how anybody is to provide for an increased circulation, except by creating a demand for gold; that is, supposing the fiduciary issue is not changed.

9496. But surely if gold arrived in this country and was taken to the Bank of England, and notes issued against it, that would increase the circulation, would it not?—Yes, if anybody took them.

9497. They must take the notes against the gold they deliver?—Yes, but they do not want the gold, I suppose, and I cannot imagine the circumstances that are being considered.

9498. Do you see any connexion between the fall in the rupee and the fall in wheat?—Undoubtedly, because gold is appreciated, and, therefore, it affects all commodities, silver among them.

9499. You stated that an exporter of wheat from India received as much goods as formerly. Would you take the instance of copper, which, I believe, is largely exported to India, and has risen now 50 per cent.? Of course you would expect that the exporter of wheat from India would not receive the same amount of copper as formerly, owing to this great advance?—I was very desirous, if I possibly could, not to take up individual cases of that description. I thought that it was generally assumed that gold had appreciated with reference to almost all articles, and I take that as the basis of my argument.

9500. We have heard it stated that the fall in the rupee is a benefit to India. Do you agree with that?—I daresay you notice how very much disinclined I am to say that there has been a fall in the rupee.

9501. The rupee is now *1s. 5d.*; it was *1s. 11d.*?—I say there has been a rise in gold, but there has been no fall in the rupee. I have a great objection to the phrase a fall in the rupee. I prefer to call it a rise in gold; I understand that, but I do not agree there has been a fall in the rupee.

9502. Supposing that Germany saw no advantage in continuing to hold her useless silver and sold it, would not silver and also rupees decline in value?—Undoubtedly, by throwing more silver on to the market of the world; there is no doubt it would have an effect that way.

9503. (*Chairman.*) But in that case would not you call it a decline of the rupee rather than a further appreciation of gold, inasmuch as it is produced by an increased supply?—It is very possible it might be then. It has not arisen yet. In fact, all the silver that has been thrown on the market has been more than absorbed, for silver is slightly appreciated. I am very strong upon that point. I am sorry to be so pertinacious, but I cannot agree that silver has gone down in value.

9504. (*Mr. Montagu.*) Why should a bimetallic convention, say, at 20 to 1, break down, if all the important nations joined in it?—I should have to suppose that everybody is wise to suppose that it would remain. I cannot suppose that everybody is wise. Just think of the folly of the United States when they were a debtor nation in adopting a gold coinage. They knew nothing about currency matters; they did not know that it was going to increase their debt enormously.

9505. Is the United States a debtor nation?—I call it so.

9506. What leads you to suppose that?—Well, I believe there are enormous quantities of stocks held in this country for railways and all sorts of industrial enterprises for which dividends are received in this country. Besides, if you look at their imports and exports you will find that invariably they are a greater exporting than an importing nation.

9507. You are aware that almost all her public debt is held in America?—Oh, but that is very small in comparison with the other debts of the United States; so I believe.

9508. Do you think France could alone maintain bimetallism at the time, 1873; do you think she was able to maintain bimetallism alone?—Oh, dear no.

9509. And, therefore, you use the refusal to help Germany to exchange her silver for gold as an argument against bimetallism?—Yes; but I prefer to change the word refusal into inability.

9510. Because France singly could maintain it, and refused to help Germany to exchange to gold, would you consider that an argument against universal bimetallism?—Again I deny that France could singly maintain bimetallism. In fact, it broke down upon that point. It is difficult to imagine a stronger argument.

9511. Bimetallists do not for a moment assert, I believe, that one nation or two nations could maintain the bimetallic convention?—No, they have various views. I have had a long correspondence with Mr. Grenfell, who thinks one nation is quite enough for it.

9512. Would you think that a bimetallic ratio of 20 to 1 would interfere with contracts?—It would, I think, to a small extent, very likely.

9513. Considering that it did not raise silver at all, would it interfere with contracts?—It would raise silver in comparison with its present price; that is to say, if you paid in silver instead of in gold—to that extent it would be an injury.

9514. You advise foreign countries to adopt silver currency while we keep out of it. Do you think that

advice is likely to be followed?—There again I have to make an estimate of the folly of mankind. I have said it would be to the interest of the United States to adopt that policy, and that therefore it would be foolish for them not to do so.

9515. Do you think any other country has a greater interest than this Empire in silver?—This country has little interest in silver. It would be to the interest of this country that every other country should adopt a gold currency.

9516. If the United States of America followed your advice, and became monometallic on silver, do you not see great danger in her supplanting us in the trade with India and the East?—Oh, dear no.

9517. You see no facility, then, between one silver-

using country and another trading?—Oh, none whatever; that is only a bogey.

9518. And you think that if a man imported from China, tea, and had to fix his price in silver, that he would be under a disadvantage to an American who had silver ready at hand?—Oh, no; it makes no difference, whatever the currency is. I hope you understood me to say just now that a universal gold currency for every country in the world would be the greatest possible advantage to this country, because we are the greatest creditor nation in the world, and it would increase the world's debts to us enormously. This is an undoubted fact, though no one could properly, I may say honourably, recommend it as a policy.

Mr.
D. Watney.
5 Dec. 1887.

The witness withdrew.

Adjourned till Friday.

FORTY-SECOND DAY.

Friday, 9th December 1887.

PRESENT :

THE RIGHT HON. LORD HERSCHELL, the CHAIRMAN, presiding.

MR. D. M. BARBOUR, C.S.I.
MR. J. W. BIRCH.
MR. H. CHAPLIN, M.P.

SIR T. H. FARRER, Bart.
SIR JOHN LUBBOCK, Bart., M.P.
MR. S. MONTAGU, M.P., and

MR. GEO. H. MURRAY, *Secretary*.

LORD ADDINGTON called and examined.

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9519. (*Chairman*.) You are one of the directors of the Bank of England?—I am.

9520. And have given considerable attention to these currency questions?—To currency questions generally, but to the bi-metallic question I cannot say that I had given much attention, until your Lordship's invitation was read to the Bank Court, which I felt I ought to respond to, if I possibly could, and thereupon I prepared this paper, which I put in in place of verbal evidence.

The Theory of BI-METALLISM.

Many trades and industries have recently suffered, and the severe and general depression of price for agricultural and manufactured products has entailed serious loss on those engaged in the production of such articles.

Amongst the articles which have materially fallen in price, silver is conspicuous. The price of bar silver in 1873 having been 60 pence per oz., and now in June 1887 being 44 pence per oz.

The fall of silver as compared with gold is a far more important incident than the fall of price in any other commodity, for silver is a precious metal; it is in many countries the medium of exchange and the measure of value, and a fall of prices estimated in silver as a measure

of value, has, consequent upon the fall in silver as a commodity, varied still further from the level of prices previously expressed in gold.

This conflict of standards has been especially vexatious in the dealings between England with its gold and India with its silver standard of value, and while all concur in the advantage that would accompany a common standard for the two countries, no agreement has yet been attained as to the mode of procuring it.

The most prominent of the competing schemes is the one designated Bi-metallism, which may be thus defined:—

Bi-metallism is the combination,—for the purposes of currency, and as the standard of value and measure of price,—of gold and silver in a fixed ratio to one another (say of 1 part of gold to 15½ parts of silver).

The civilized nations of the world would join in the adoption of Bi-metallism by an engagement which would involve an obligation to coin, free of charge, or at a uniform charge, all the gold and silver brought to each national mint, they would bind themselves to constitute, as legal payments, all payments in gold and silver coin at their permanently assigned value.

Upon the execution of this cosmopolitan treaty, Bi-metallism would be established. Its consequence would be,—

1. That every standard silver coin would bear a fixed proportionate value to every standard gold coin.

2. That payments to any amount might be made in either metal at the option of the payer.

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3. That silver would, as a commodity, acquire and retain the value given to it by international law.

4. That holders of silver coins would possess coins of invariable and international value, and that owners of silver mines would command a certain cash price for any quantity which they could produce.

5. That fresh discoveries of either gold or silver would add to the compound mass, but would not affect the price of either silver or gold separately.

6. That the complexity attending the computation of price between countries now using different standards, and the uncertainty attending the realization of transactions would, so far as they arose from the variability of the relative values of gold and silver, wholly disappear.

7. That, as touching the intercourse of India and England commercially and financially, the operation of Bi-metallism would materially diminish the clerical labour involved, and terminate the fluctuating value of the rupee.

These consequences would seem to follow upon the establishment of Bi-metallism, but can Bi-metallism be established?

An affirmative implies,—

1. That all, or at least the principal, civilized nations of the world would concur in framing and observe the provisions of the bi-metallic treaty, and that each contracting state should have, as the basis of its own concurrence, a solid reliance on the good faith and capacity of every other state for the permanent observance of the treaty in all its parts.

The theory of Bi-metallism is attractive, and I discover no logical inaccuracy in its construction. Its practical value must depend upon the feasibility of the premises on which it is based, and obviously this is not to be easily secured.

Before, however, determining that Bi-metallism should become an object of general desire and laborious diplomatic efforts, it will not be superfluous carefully to investigate the motives alleged for its adoption.

REASONS FOR ADOPTING BI-METALLISM.

Bi-metallism is prescribed as a remedy for commercial depression alleged to be mainly the effect of an appreciation of gold.

The depression is unquestioned; the appreciation of gold as its cause has not been demonstrated. I will attempt to investigate the allegation.

The appreciation of gold implies its scarcity, independently, at least, of those accidents which affect its value in use and in exchange.

Excluding, however, all qualifying circumstances, it necessarily ensues, upon a scarcity of gold, that it commands, as capital and as currency, a higher rate of interest in use, a larger quantity of commodities in exchange. When both these indications are visible, an appreciation of gold arising from its scarcity may be assumed, but as an evidence of scarcity in the present discussion an enhanced rate of interest has been conspicuously absent. Mr. Gibbs, indeed, designates this stipulated evidence as an error, involving an ambiguity in the use of the word money. "The phrase 'Money is cheap,' has (he writes) no reference 'whatever to any scarcity or abundance of coin. It 'relates rather to *time* than to *money*, to the rate of 'interest or discount payable for the anticipation of 'money not yet due."

Of course, *time* is an element in the computation of interest, it measures the amount of the consideration, but the *rate* of the consideration for use is dependent upon the abundance or scarcity of the money seeking investment.

The effect of an influx of gold may be temporary, the bullion in the bank may subside, and, concurrently, the rate of interest may decrease, but if the bullion in the Issue Department and the reserve in the Banking Department are maintained above the average level, the rate of interest will range below the average and securities will rise in value.

Throughout the whole period 1873-87, to which the controversy relates, the bullion in the Issue Department and the reserve in the Banking Department have been maintained at an average level which has entailed a rate of discount indicating rather an excess, than a scarcity of gold. The bullion in the Bank of France rose in the same period from 30 to 140 millions, of which the gold alone was 55 millions, so that in the two chief financial capitals there is recorded a distinct refutation of the theory that gold has been appreciated through comparative scarcity. Mr. Gibbs thinks that the production of gold within the last 10 years has scarcely supplied the consumption and

wear and tear, and he states that within the same period Germany and Italy have acquired some 100 millions for currency purposes, while other states have also taken considerable sums. Upon these premises, Mr. Gibbs concludes ("Fortnightly," October 1886, p. 484):—"So, then, 'supply has diminished, demand has increased, gold is 'dear, commodities are cheap." The propositions of this sequence seem to me irreconcilable with facts. I do not find the affirmation, "Gold is dear," to be true upon the average records of the period under review, for I hold that dearness in use is inseparable from scarcity of gold, and I demur to the exclusive application of the terms "cheap money," or "dear money," to the rate paying for a loan with few days to run, or for money at call; a limitation which would render it irrelevant to the argument. The rate of discount for three months' bills, and the price of Government stocks and other first class securities, are real tests of the scarcity or abundance of money seeking investment, and these evidences are distinctly at variance with the assumed dearness of gold from 1873 to 1887.

A single proof, however, may carry conviction, and there is still offered in evidence the list of depressed prices accompanying the alleged appreciation of gold. The evidence deduced from prices, to be effectual, must, however, be universal, and the depression of prices must be capable of being distinctly traced to the influence of the scarcity of gold (or rather of gold and silver, each of which acts as a measure of value).

The universality of the depression of prices may be open to argument, and the scarcity of gold may be debateable, but the connection of these two facts as cause and effect, if real, should be demonstrated. It is here that bi-metallists fail; they assume the coincidence of depressed prices in view of a diminished production of gold, and of the adoption of a gold standard by Germany and Italy, to be equivalent to the depression of prices consequent upon a scarcity of gold, but they make no attempt to trace the economic operation.

There is really no necessity for ascribing to some occult and inexplicable influence the connection between the recent decline of prices and the diminished production of gold, when, as regards a very large portion of the articles depressed, depreciation can be explained upon the recognized principle of supply and demand; of supply not necessarily excessive in relation to the past, but excessive relatively to a present diminished demand.

A period of prosperity leads to enlarged production and the expansion of any branch of industry stimulates others. A multiplication of ships leads to a rivalry for cargoes, low freights lead to cheap imports, while, again, the velocity of steam, and the instantaneous telegraphic order supersede the necessity for keeping stocks. Every scientific advance tends to the depression of price.

THE EFFECT OF THE SILVER DISCOVERIES OF THE SIXTEENTH CENTURY.

The rise of prices consequent upon the silver discoveries of the sixteenth century is cited as illustrating the connection between the mass of precious metals in its varying magnitude and the prices of the commodities which it served to circulate. It may be useful to refer upon this subject to Tooke and Newmarch, "High and Low Prices," and from the 6th Volume, Appendix 2, I gather these facts:—

The precious metals in the old world in 1492, were estimated by Jacob at -	£ 33,342,000
Gold and silver produced from 1492 to 1600 - - - - -	143,658,000
Gold and silver produced from 1600 to 1700 - - - - -	337,000,000
Gold and silver produced from 1700 to 1809 - - - - -	880,000,000
	1,394,000,000
Leaving, after deduction made for wear and use, a sum existing as coin in 1809, in Europe, Africa, and America - - - - -	280,000,000

The effect of variations in quantity upon the power of gold and silver as measures of value must depend upon the proportion borne by the amounts newly added to the currency to the pre-existent amounts; and it would be natural to find that the extensive discoveries in the 16th century would make a sensible impression upon prices subsisting concurrently with a metallic currency in the old world of no more than 33 millions sterling. The effect of the new discoveries seems to have been slow and gradual, and Adam Smith remarks, "that the discovery of 'the mines of America does not seem to have had any

"very sensible effect upon the prices of things in England till after 1570, although even the mines of Potosi had been discovered more than 20 years before. The price of wheat had, since 1350, fallen gradually from four to two ounces of silver, equal to 10s. of our present money, the price at which it was estimated till about 1570.

"From 1570 to 1640 the variation between the value of silver and that of corn held a quite opposite course. Silver sank in its real value, or would exchange for a smaller quantity of labour than before, and corn rose in nominal price, and came to be sold, not for two ounces or ten shillings, but for six or eight ounces of silver, or about 30s. or 40s. of our present money.

"The discovery of the abundant mines of America seems to have been the sole cause of this diminution in the value of silver in proportion to that of corn (between 1570 and 1640). Europe was, during this period, advancing in industry and improvement, and the demand for silver must consequently have increased. But the increase in the supply of silver, had, it seems, so far exceeded the demand for it, that the value of that metal sunk considerably."*

Here cause and effect are distinctly perceived, and the connection between them shown. The first owners of the newly discovered silver, barter it for the commodities which they covet. This abnormal demand for any article raises its price, which the purchasers readily provide out of their metallic abundance. Their customers in turn seek the articles which would gratify them, and, in the face of an enlarged demand, readily meet the higher price out of their profitably acquired silver. Another (and another) circle of operations diffuses the influence of the new demand, until the power of purchase in the silver is determined by the cost of its production.†

In general terms, Adam Smith considered that the American discoveries raised the price of the quarter of wheat threefold, i.e., from two to six ounces of silver. The stock of gold and silver having, within the same period, increased sevenfold, viz., from 33 millions sterling to 220 millions.

EFFECT OF GOLD DISCOVERIES OF 1848 AND 1850.

I proceed to the consideration of the discoveries of gold in California in 1848, and in Australia in 1850, seeking my information in Tooke and Newmarch's 6th volume, p. 368.

The aggregate amount of gold and silver coin in Europe, Africa, and America in 1809 was estimated by Jacob at	380,000,000
He computed the increase of that stock up to 1829 at	103,000,000
	483,000,000
The exports to India and the loss by wear and tear in the same period at	170,000,000
Leaving for coin in Europe, Africa, and America (in 1829)	313,000,000

There is good reason to believe that the total stock (of gold existing) in various forms in Europe and America in 1848 was—(Tooke and Newmarch, 6th vol., p. 230)—

Of gold - - - 560 millions

And of silver - - - 800 „

Together 1,360 „

that the new supplies of gold from 1848 to 1856 from California and Australia amounted to 174 millions, and that an equal amount of 174 millions sterling was in the same period added to the gold coin in England, France, and the United States, raising its aggregate by one-third from 560 to 734 millions.‡ It was to an existing stock of 560 millions in gold and silver coin that the new discoveries were to be added, and it is important to trace the effect on prices of an addition within nine years of nearly one-third.

In 1849 the gold of San Francisco was eagerly sought and wrought by a vigorous company of adventurers rapidly increasing from a mere handful to many thousands. They came inadequately provided with tools or implements, yet in the earlier days of their labour they averaged 2l. or 3l. worth of gold dust as the result of a day's hard work. With experience their gains increased, and men have been known to gain for days successively from 100 or 200 dollars a day up to five or even eight hundred dollars. Wealth easily acquired was as easily spent; provisions rose enormously in

price, eggs were sold at 4d., 8d., and 10d. each. Sugar, tea, and coffee at 16s. a lb. Picks and shovels at from one to three pounds each; a suit of clothes for 200 dollars, a pair of boots for 100 dollars. Iron tacks were bought at their weight in gold. All had gold and all wanted commodities which as yet were but scantily supplied, and of which the price was consequently extravagantly raised. The abnormal demand quickly attracted fresh supplies, and within a couple of years a strong reaction had set in. This again in time subsided to an elevated though more equable level regulated in proportion to the gains of labour at the mines.

The working of the Australian mines was in full activity from August 1851 to July 1853, and during that period the rush of immigrants to the Victoria diggings, and their successful labour, rapidly raised wages fourfold, and enormously enhanced the prices of spirits, beer, provisions, clothing, tools, carts and horses, in fact, of all commodities which the miners required.*

The effect of the excessive demands by the miners was soon evidenced in the exports from the mother country, and the trade returns show that ten articles, of which the value exported to the United States and Victoria was 11½ millions in 1849, had risen to 29½ millions in 1853—the increase of 18 millions being attributable to the demand created by the gold discoveries.

Rapid had been the inflation of prices and the rise in wages in Australia; rapid also was the reaction, and severe the crisis consequent on the overwhelming supply of every conceivable article. The crisis extended over the whole of the year 1854, but it subsided between February and August 1855, and the torrent of imports having ceased, trade assumed a more settled and hopeful aspect, which prevailed continuously throughout 1856.

It has been remarked by Mr. Newmarch, "That the rise of prices in 1851–3 followed precisely the increase of expenditure arising out of the augmented incomes of the inhabitants of the Colony, that the incomes first augmented were those of the unskilled labourers, then the incomes of skilled labourers, then the incomes of retail dealers—and so on in upward progression."

The facility and certainty of obtaining fresh supplies precluded the recurrence of extravagant prices for imported articles, but for articles of local production, such as meat, dairy, farm, and garden produce, required by vast numbers of thriving labourers, inordinate prices were easily secured by fortunate purveyors, until competition moderated their profits, and the gardener who sold a cabbage for 5s. in 1854, was reduced to accepting 2d. for the same article in 1856.

A review of the history of Victoria during the years 1851–1856 justifies the conclusion that the discovery of gold led to the immediate elevation of prices in the Colony, but that this effect had, as regarded most articles, passed away with the year 1853, and that prices during the entire period under survey were visibly determined by the relative forces of supply and demand.†

In relation to the present controversy, the question is not what effect the gold discoveries of California and Australia had upon prices of commodities in those countries, but what effect they had upon prices in England.

Classifying the articles noticed, I find that the chief articles of colonial and tropical produce, tea, sugar, coffee, tobacco, silk, cotton, and indigo are scarcely higher in price at the close of 1856 than they were in 1850. That raw materials generally experienced a progressive rise from 1851 up to the close of 1856; that the Russian War of 1854–6 exercised a disturbing influence upon prices; but that no change of any magnitude is recorded which does not admit of explanation upon purely mercantile reasons relating to supply and demand.

Mr. Tooke (A.D. 1857) concludes "that while no immediate influence of the gold discoveries can be traced in the present range of prices, the eventual subsidence of them, when disturbing causes have ceased, is likely to be at a higher level than could otherwise be maintained."‡

The effect of the gold discoveries of California and Australia upon prices in England was brief in its duration and difficult to assess. I have now to ascertain what were their direct effect upon the rate of interest, and the price of interest-bearing securities.

The bullion in the Bank of England for the five years 1845–9 averaged 13,898,000l., and, on the 5th April 1851, the bullion in the issue department of the bank stood at 13,294,000l.; the rate of discount was 3 per cent., and the price of Consols 96½. The influx of gold had, by the 6th October 1852, raised the bullion to 20,990,000l.; the rate of discount had fallen to 2 per cent., and the price of

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* Tooke and Newmarch, pp. 378, 382, 6th vol.
† Tooke and Newmarch, pp. 885, 413.
‡ Tooke and Newmarch, 6th vol., pp. 151, 159.

* Tooke and Newmarch, pp. 804, 806, 810.
† Tooke and Newmarch, 6th. vol., pp. 810, 812.
‡ Tooke and Newmarch, 6th vol., p. 663.

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Consols had risen to 100%. The accumulation of gold ceased early in 1853, with the rumours of an impending war between Russia and Turkey, and the measures consequent on the certainty of hostilities aided the reaction, which, by the 5th October 1853, reduced the bullion in the Bank to 15,032,000*l.*, the price of Consols to 91, and raised the rate of discount to 5 per cent.

For years the bullion in the Bank continued to decline, and it appears therefore that although the enormous gold production of 1850–1856 averaged 28 millions annually, of which three-fourths came to this country, yet, under the influence of commercial activity and of war expenditure, this flood of gold had been diffused so rapidly and so widely that, subsequently to the brief inflation of 1851–1853, it left no sensible effect upon prices which can be assigned to the vast addition made to the metallic wealth of the universe.

We have been challenged to consider the depression in connection with its alleged cause—an appreciation or scarcity of gold—and I have therefore referred for guidance to the great events in the history of the precious metals which occurred, first, in the 16th century and again in the midst of the 19th century, for in the absence of mathematical demonstration reasoning by analogy becomes an important form of argument.

1. Bi-metallists assert that the present depression of prices is mainly the consequence of a scarcity and appreciation of gold.

2. That gold is now appreciated owing to its supply being inadequate for its purposes.

3. That to create a new standard of value, combining gold and silver in a permanently fixed ratio to one another, would enlarge the compound mass of the measure of value, and relieve prices from the disturbing influences to which they are now subject.

Upon these propositions I remark :—

1. That the effect of a diminished production of the precious metals may be not to create a scarcity but to mitigate a surfeit; and that the diminished production of recent years has not been such, relatively to the existing stock of gold, as to superinduce the first and most unquestioned test of scarcity, viz., “dearness in use” preceding “dearness in exchange.” I have traced the process through which the owner of newly found and easily acquired gold yields it in larger measure in exchange for the articles he desires. Let us endeavour to trace the action prompted by a scarcity of gold arising from diminished production. The evidence of that diminution will be found in the gradual absorption of the unwrought metal through its coinage in replacement of the incessant wear and tear of the current coin, in the consequent subsidence of the metallic deposits in the national banks, in the contraction of their reserves, and in the increase of their charge for discount—and, as the sequel, a rise in the rate of interest, which discourages the holding of stocks of merchandize, and creates a disposition to realise which inevitably depresses prices.

At this moment the rate of interest, instead of indicating by its elevation a scarcity of gold, is lower than ever was known in the history of the world. Advances are readily obtained, and three months’ bills easily discounted at 1 per cent. per annum. In the face of this great fact, and of the increased value of solid securities, the assumption that there is a scarcity of gold is clearly untenable. If, however, some intrepid bi-metallist affirms a connexion between the prevalent low prices and the assumed appreciation of gold arising from scarcity, let him explain the “modus operandi”; let him set forth the process of reasoning, the motive which impels a seller to accept, except upon the issue of the struggle between supply and demand, a lower price for his goods in the face of an abundance of capital and of a low rate of interest.

The assumption of a scarcity of gold is visibly refuted by the returns of the gold and silver held on the 1st May 1887, given in detail in the “Economist” of 4th June, the results being that the United States’ Treasury and the Banks of France, England, and Germany held as their aggregate amounts of—

	1881.	1887.	Increase.
Gold	87,168,582	147,026,334	59,857,752
Silver	82,018,115	113,141,974	31,123,859
	169,186,697	260,168,308	90,981,611

In the face of these statements of the stocks of gold and silver, and of the unprecedentedly low rate of interest, it seems futile to affirm that the low prices of the day are the consequence of an appreciation or of a scarcity of gold.

2. Accepting the prevalent depression of prices to be in some degree an evil, I question the results of the proposed remedy—bi-metallism.

Gold and silver act now separately as measures of price; if united, as parts of a joint currency, they would still fulfil the same office, and I fail to see how or why (for instance) meat and wheat, butter and wool, should rise in price because bi-metallism had been proclaimed. The convenience of a common coin, as of a common language, may be admitted, but the effect bi-metallism would have on prices is very problematical. The certainties are these :—An enormous boon would be conferred on the owners of silver mines, assuming that which is the basis of the movement to be well founded, that silver is becoming more abundant; and so far as the union tended to depress or limit the comparative value of gold, countries which, like England, have on other countries large claims payable in gold would be proportionately damaged.

I do not ignore the practical inconvenience which results from maintaining a gold standard of value in England and a silver standard in India; but the consideration of the mode in which that inconvenience operates, and of the means through which it might be removed or mitigated, I have deemed to be outside the present inquiry, which is intended to ascertain the connexion between an alleged appreciation of gold and the depression of prices, and the expediency of adopting a universal bi-metallism as the remedy for the depression.

I have confined my remarks to these points, and I submit, as inferential from the evidence I have adduced, the following conclusions :—

1. That a theory of bi-metallism may be constructed on assumed bases and terms which, if established and enforced, ought logically to succeed in creating an international currency and standard of value.

2. That the prevalent depression of prices cannot be the effect of an appreciation or scarcity of gold, since a scarcity of gold which would depress prices through its dearness in use is non-existent.

3. That a system of international bi-metallism is not required as a remedy for the depression imputed to a scarcity of gold, inasmuch as the existence of such scarcity has not been manifested.

9521. This paper conveys your views upon the subject?—It does.

9522. (*Mr. Barbour.*) Would you be in favour of the gradual demonetization of silver everywhere, and the adoption of the gold standard instead of it?—No, I do not want to interfere with any existing system.

9523. Assuming that the practical difficulties in the way of establishing what is called bi-metallism are insuperable, and that both gold and silver must continue to be used as standard money, can you point to any satisfactory principle on which the division of the countries of the world into gold-using countries and silver-using countries can be based?—I do not appear either as an advocate for or an opponent of bi-metallism. It appears to me that the theory has very much which is fascinating about it, but I give no opinion as to whether it is practicable or not, beyond a general opinion as to the very great difficulty which would attend its adoption. I am not prepared to depreciate any of the advantages which would result from having a cosmopolitan currency; like a common language, I think it might have very many conveniences. I think the arguments on both sides have been exaggerated, both the difficulties which would attend the operation of such a theory, if it were practicable, and the injuries which result from the present system; but I am not prepared to point out any mode of escape from the existing difficulties which every one acknowledges.

9524. There has been an objection raised to the use of silver, which has been strongly put by The Hon. David A. Wells in an article in the *Contemporary Review* for this month, and I should like to read you a passage which explains that objection :—“In respect of portability, convenience for use, adaption to domestic and foreign business alike, the balance of advantages for all transactions above 5*l.* is also largely on the side of gold; as will be evident when it is remembered that it required, even before its depreciation, 16 times more time to count silver in any considerable

"quantity than an equal value of gold; 16 times more to handle it; 16 times more packages, casks, or capacity to hold it; and 16 times more expense to transport it. In other words, in this saving age, when the possibility of extensive business transactions is turning on profits reckoned not in cents, but in fractions of cents per yard, per pound, or per bushel, to use silver for large transactions in the place of gold, is a misapplication of at least fifteen-sixteenths of a given unit of effort, time, expense, and capacity, when one-sixteenth would accomplish the same result." Do you think there is much force in that objection?—No, I do not; I think there is some confusion there between currency as a medium of exchange and currency as a standard of value. I conceive that that is exactly the point where large exaggeration prevails. You might have a gold standard and yet have silver very largely in use as a currency, and as a country is more or less civilized, and more or less in a condition to adopt banking facilities, so you find the modes of payment more or less clumsy; but I do not think that the inconvenience of a silver currency is at all to be measured by the multiplication of its inferiority to gold; in fact, one might illustrate that opinion by a reference to a country of which I know something—Russia. When I first knew Russia the operations of currency very seldom used to be made in silver, they used to be made in bundles of notes. If large payments in India are in question, I think banking facilities would be found as the means of paying large sums by notes or cheques, without having the burden of carrying about a large mass of coin.

9525. The evidence given before this Commission has not been to the effect that the Bombay cotton mills are handicapped, as regards Lancashire mills, by the use of silver instead of gold, but the contrary. There is a difference of opinion as to the amount of gain, but I do not think there is any difference of opinion as to the fact that there is some gain, and that would corroborate your opinion that the use of silver, as currency, is not open to any serious objection on the ground of its weight. Does not this show that though silver may be less portable than gold, still under certain conditions, and for certain purposes, it may be a better standard than gold?—I do not think it is, but there is no doubt that countries using silver have at this moment, with the depreciation of silver, a certain disadvantage in the payments that they receive for their productions. If India sells her cotton or her wheat for silver she receives in that silver mode of payment an article worth one-fourth less than it was worth a few years back.

9526. Yes, but presumably she gets more of it?—Well, that ought to be, no doubt, but I have understood from the evidence that has been given before this Commission that the variations in price in India have been remarkably small as compared with the variations in silver.

9527. She gets comparatively more than if the standard had been gold; would you admit that? The Indian producer may only get the same amount of silver as he formerly did for what he sells, but if India had had a gold standard he would now get less gold than he formerly did?—Well, if she had got gold, the price might have been different, because the truth is that, notwithstanding the general tenacity of prices, the price of her commodities varies with the absolute value of the article which is given in exchange, and therefore, if India sells wheat at a given price, and that price is paid in silver when the price of silver is reduced by one-fourth, it certainly receives less than it would have sold the wheat for if it had been paid in gold.

9528. You said just now, in connexion with this question of the standard and the currency, that there were really two questions; first of all, the stability of the standard, and, secondly, the convenience of the ordinary circulating medium?—Yes.

9529. And I suppose you would say that, looking simply to the standard, a country should choose the material which would give the greatest stability of purchasing power; and, looking to the circulating medium, a country should choose that form of circulating medium which would be most convenient in actual practice?—Yes.

9530. Should you admit that it would be a great mistake to choose the standard of value merely with reference to its convenience as a circulating medium?—I think so, because it is more important to have a satisfactory measure of value than to have a currency which is convenient, inasmuch as you can vary your form of currency; you may use either silver or gold, or you may use paper representative of either one or the other, but the standard itself is of the highest possible importance.

9531. I should like to read you a passage from Lord Liverpool's "Treatise on the Coins of the Realm," with which, I have no doubt, you are familiar: "It cannot, I think, be doubted that the metal of which this principal measure of property is made should correspond with the wealth and commerce of the country for which it is intended. Coins should be made of metals, more or less valuable, in proportion to the wealth and commerce of the country in which they are to be the measure of property. In very poor countries coins have been and still are principally made of copper, and sometimes even of less valuable materials. In countries advanced to a certain degree of opulence silver is the metal of which coins are made. In very rich countries, and especially in those where great and extensive commerce is carried on, gold is the most proper metal of which this principal measure of property and this instrument of commerce should be made; in such countries gold will, in practice, become the principal measure of property and the instrument of commerce with the general consent of the people, not only without the support of law, but in spite of almost any law that may be enacted to the contrary, for the principal exchanges and purchases cannot there be made with any convenience in coins of a less valuable metal." Does it not appear to you that, in writing that passage, Lord Liverpool looked rather to the convenience of the circulating medium than to the stability of the standard of value?—Certainly the language appears to be directed to that point. Probably he had both in his mind, but it is exceedingly difficult for anyone to say what may have been in Lord Liverpool's mind, and I am not prepared to hazard an opinion upon the subject.

9532. But the argument which he uses in that passage in favour of the adoption of the gold standard is based entirely on its convenience for making payments, that is, as a circulating medium?—In this country you may say in both respects, both as a standard and as a medium of exchange it is far the best standard to adopt. It does not follow that the same thing would be the case in China or in India. In India the condition of the people and the prices which prevail there may make silver a more convenient medium of exchange than gold would be.

9533. (Mr. Birch.) You referred just now to Russia in your early days, but is it not very much the same system now that all payments are made in bundles of notes?—No, now the banking system has very much extended itself, and they pay by cheques; they take cheques.

9534. I understood you to say that you did not see any objection to silver currency, but you would object to any attempt on the part of England to establish a double standard with a free mintage of gold and silver at a fixed ratio?—As regards England I see no motive whatever for making any change from our present system.

9535. Would you not consider that in the event of the ratio of 15½ to 1 being established it would materially interfere with the production of gold and

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give facilities for the increase of the production of silver?—I do not think that it would interfere with the production of gold, because probably the profit upon the production of either gold or silver is sufficient to keep the miners at work, whatever their relative proportions may be; but I regard an absence of any distinct proposition on the part of bi-metallists as to the proportion between gold and silver to be fatal to the serious entertainment of their scheme at all. I have never yet found any agreement. Some want $15\frac{1}{2}$ to 1, and some want $20\frac{1}{2}$ to 1. At the present moment it would be impossible to go practically into the consideration of a bi-metallic system which would take any other than the actual proportion between the value of gold and silver.

9536. Then I understood you to say, in reply to Mr. Barbour, that in your opinion there is no necessity for India having the same standard of value as England?—I see no necessity for it. There, no doubt, would be a very considerable convenience in it. It is a very great advantage to be able to know almost intuitively what the price of one coin and of one commodity is in the currency of another place and in another country; but, on the other hand, it is the business of merchants to make these calculations, and they are made without much difficulty, and I do not for a moment believe that the absence of that great facility of calculation interposes any practical difficulty in the exchange of commodities. If India produces commodities that we want we shall have them. If we produce manufactures that India wants she will have them; and it is only a certain difficulty in the arrangement of price which is the result of the present anomalous condition between England and its dependency, India, in the standard of value.

9537. You have had nothing yourself, I think, to do with business with the East?—Not with India; but the trade with Russia is carried on exactly in face of the same difficulty which prevails in India—a variable exchange. The inconvertible paper money of Russia is of course variable, and it has varied even more than the price of silver, so that the difficulties there are precisely analogous to those which have prevailed in India, but they do not restrict operations. Merchants have only to make their arrangements with regard to the fixing of the exchange and also to determine the value of what they want to sell or what they buy.

9538. The fact is, it is an inconvenience, but it is an inconvenience which can be overcome by the ordinary mercantile arrangements in all parts of the world?—Yes.

9539. If you import wheat from Russia you take into calculation the rate of exchange and the price there, and thus arrive at the price at which you can sell?—Yes.

9540. (*Chairman.*) Do you find that gold prices of the productions in Russia have become less of late when the rouble has been more depreciated?—Prices altogether have been subject to such very large variations of late that it would be very difficult to determine how much of that was attributable to the change of policy; but in Russia, I must say, the standard has never been absolutely gold. It has been silver. The legal currency of Russia is a silver rouble, which ought to be worth $37\frac{1}{2}d.$, but which is only worth now $21\frac{1}{2}d.$

9541. Yes; but have you observed at all, one way or the other, whether there are variations in the rouble price corresponding with the variations in the exchange?—There is no doubt that at the export markets the variations take place closely upon those lines. In the interior of the country, just as in the interior of India, people have not the same information, and prices remain unaffected for a long time. They are much more slow in feeling the effect of either the depreciation in the value of paper or the depreciation in the value of the silver.

9542. (*Sir T. Farrer.*) Do you find that a fall in the value of the Russian paper is followed by a lowered price, an increased purchase of Russian goods, and increased imports of Russian goods into this country?—I suppose we may say, with regard to the trade in Russia and to the trade with India, that it is English adventure and English capital that carries it on, and therefore the London merchant can give his order at a certain price with reference to the value of the commodity here, and the execution of that order depends upon the concurrence of a certain price with a certain rate of exchange. If the exchange has gone down, he could give a higher price there for the commodity that he wants to buy. The native seller, of course, would raise his price when he found that his foreign customer is prepared, owing to the fall of exchange, to give a higher price in rubles.

9543. Then the fall in exchange shows itself more in a rise of the Russian price than in a fall of the English price?—Yes.

9544. (*Chairman.*) Why should the merchant here be willing to give a higher price? Of course he can afford to give it, but he would try to get it at as low a price as he could, and unless the situation was thoroughly appreciated by the people throughout the country, would not he be able to get it at a lower price, and so be in a position to sell at a lower price here, and better compete with his rivals?—Certainly. I do not suggest that the London merchant would give a higher price. He may give a higher price in rubles to the Russians, but owing to the fall in the exchange, it may still cost him less than previously. He gives his order to buy at the lowest price at which he could get an article, but that price has its limit.

9545. (*Mr. Montagu.*) By competition of Russian merchants in Russia?—Clearly; the limit of the price to be paid is the price at which he can expect to sell at a profit.

9546. (*Sir T. Farrer.*) As I understand you, the Russian price follows the English price rather than the English price the price of the paper rouble?—Certainly.

9547. (*Mr. Montagu.*) Has there not been a diminution in the circulation of Russian notes of late years by destroying them?—There has been, I am told, from time to time a diminution, but I am afraid there has also been an extension, if I may judge from the state of exchange, because the state of the exchange has never recovered itself.

9548. Information has been given that about 25,000,000 of roubles have been destroyed each year latterly, and that no fresh issues have been made?—I was not aware of the fact.

9549. I have received information, and I wanted to know whether you could confirm it?—I cannot confirm it.

9550. Is not the inconvertible paper a great disadvantage to Russia?—It has the disadvantage of keeping values in a very fluctuating and uncertain state. I do not know that it has any other disadvantage, and the confidence it commands is unbounded. It passes as readily as the bullion itself would.

9551. (*Mr. Barbour.*) You said, in reply to Mr. Birch, that there was a certain amount of inconvenience arose when two countries with different standards traded with each other, but that was not, you thought, very serious?—I say it was not so serious as to prevent the operations which supply the two countries with the articles that they severally require from each other.

9552. But it is an inconvenience, though not, in your opinion, a very serious one?—It is an inconvenience.

9553. Are there not also financial difficulties besides the commercial difficulty. For instance, if one country borrowed money from another when the exchange was at a certain rate and the exchange altered very much before the time for repayment came round?—Clearly, there would be a financial difficulty, but that is one

which those who are interested only become familiar with by their own experience.

9554. But if you had contracted a debt at a time when you had no reason to suppose that there would be any such fluctuation in the relative value of the two standards, you might find yourself in a difficulty afterwards?—That is perfectly true, but where debts have been contracted in the legal currency of a country, and that currency has afterwards, according to the law of that country, been depreciated, the debtor would be naturally damnified, and very seriously.

9555. (*Mr. Chaplin.*) I suppose the value of the Russian rouble depends to some extent upon Russian credit?—Upon the credit of the Government, in fact.

9556. And that would affect it in its relation to commodities as well as in its relation to gold?—Yes, certainly, it would.

9557. I observe in the paper that you have been kind enough to submit to the Commission you say: "I do not ignore the practical inconvenience which results from maintaining a gold standard of value in England and a silver standard in India; but the consideration of the mode in which that inconvenience operates, and of the means through which it might be removed or mitigated, I have deemed to be outside the present inquiry." Well, among other things, we are instructed to inquire into the effects of the present system upon the internal trade and industry of the United Kingdom, and it has been alleged by various witnesses that it does injuriously affect certain industries in this country. Have you considered that at all?—I am not aware of those injurious results.

9558. I will take the wheat industry, for instance; are you prepared to dispute that the Indian exporter does derive an advantage from the fall in the exchange between gold and the rupee?—If the Indian producer only receives the same rupee price as he did before, he would actually be damnified rather than advantaged by it, because he would receive a consideration which has no longer the value which it formerly maintained. If he has varied his price in proportion it would come in the end to the same thing; and I imagine that although there may be a certain amount of friction to overcome, yet, sooner or later, the depreciation in value of the currency which has formed the medium of exchange will affect the price that is given, and that the price of wheat, therefore, in India, if it is paid for in depreciated silver, will ultimately be enlarged, and that, as a consequence of that same depreciation, the Indian buyer of English commodities will have to give more for them in rupees. In fact, when the price is paid in the depreciated currency the amount of the price must vary to counteract the depreciation.

9559. May I put this case to you; at the period before silver was demonetised, 40s. a quarter was not an uncommon price for wheat to be at, and, therefore, the Indian producer received 2*l.* in gold for his quarter of wheat. Now he gets 1*l.* 10*s.* in gold?—Yes.

9560. That is the price also which the English grower receives. The English grower is suffering a loss to the extent of 10*s.* a quarter, but is it not the fact that at present, with his 1*l.* 10*s.* in gold, the producer of wheat in India is able to purchase as many rupees as he could formerly buy for 2*l.*, and is it not also the fact that at present, at all events in India, the rupee retains all its original purchasing power?—There is no doubt that with 30*s.* in gold he can get 40*s.* in rupees; but the price here is not determined by the price at which he can buy the rupees.

9561. Not quite so, but I am looking to the position of the Indian producer?—Well, the Indian producer receives, we may say, so many rupees, and the rupees are worth 25 per cent. less than they were.

9562. But the most universal evidence, I think, has been that in India itself the rupee retains its original purchasing power?—That is one way of putting it, but that is a mode which I cannot accept at all. Gold and silver being so easily carried from one place to another cannot vary in their cosmopolitan value more than by the cost of carrying them from one point to another. If, therefore, you find that the rupee in India will buy a certain proportion of any commodity as it did before, it is because the price of that commodity itself has not varied, and this is only one instance, of which there are many, of the great tenacity of prices in countries which are only half civilised, or not thoroughly permeated with means of conveyance and intercommunication.

9563. (*Chairman.*) Would it not follow that by reason of that great tenacity of prices in such countries the producer in that country would have his full dram, if I may use that expression, whilst the producer in the more civilised country would not?—It depends on whether he is a buyer or a seller. If he is a seller, and the silver which is given to him is worth less, he ought really to raise his prices upon it, and that is what he will do ultimately; if the silver remain the same, then the price of wheat in India will ultimately rise to the value at which it will satisfy him to grow it.

9564. Or would have prevented from fall?—That is another way of putting it. It is the price which is variable and not the value of the gold and silver. Silver is variable, we know, from gold, but it would not necessarily be variable with regard to the price of commodities in India.

9565. Supposing that in India all prices remain the same, so that, although wheat sells for the same number of rupees, the seller can buy any other commodities that he wants at their old silver price. Supposing that in this country the seller has to take 30*s.* in gold instead of 40*s.*, if all the commodities which he has to buy have fallen to the same extent, then he would be in the same position as the producer in India, where silver prices have all remained the same. Would you agree to that?—I quite see your position, but I hold that that is a course of events which is a most improbable one. I cannot contemplate the fact of the currency of India being depreciated 25 per cent. in value and prices throughout the country remaining the same. They must, sooner or later, work down to what would be their commercial value. That commercial value would be the price at which they could sell or at which they could buy.

9566. (*Mr. Barbour.*) May I ask on what grounds you hold that the standard of India has depreciated 25 per cent.?—Because it is in silver, and because silver is worth 25 per cent. less in gold than what it was some five or six years ago.

9567. You might put that in another form by saying gold has appreciated as regards silver?—Quite so.

9568. (*Mr. Chaplin.*) Well, then, is not this the case, that it does not so much matter whether the rupee has reduced its purchasing power, or whether the prices of commodities have fallen. The Indian producer is, at all events, in this position, that he is not suffering the loss which is felt by the English producer, who is getting 1*l.* 10*s.* a quarter for his wheat instead of 2*l.*, which he got formerly?—The command of those rupees, if they enabled him to buy other products at the same price as before, no doubt would appear to put him in an advantageous position; but, as I said before, I cannot imagine that state of things being a permanent one. The natural course of Indian trade under the influence of a fall in silver, would, I imagine, be thus wise. A Liverpool corn merchant orders his agent at Bombay to purchase so many thousand quarters of wheat at such a price, cost and freight included, or a larger quantity if secured at a lower price. The agent, owing to the fall in silver

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obtains more rupees for his draft on Liverpool, and if the price of wheat in rupees has not risen, he secures the larger quantity at a price which enables the Liverpool merchant to sell it at Liverpool at (say) 30s. a quarter. The larger import of cheap foreign wheat depresses the price of English wheat and the English farmer suffers. India has sold her wheat, but she wants cotton cloth, but the Bombay importer wants more rupees in their depreciated value than formerly, and if India refuses the advance in price, the goods are withheld or sold at a loss for the Manchester manufacturer. There would be a struggle in the negotiation, but sooner or later, if silver do not recover its price, India would give a higher rupee price for its cotton cloth; and finding its rupees less effective to buy with, she would require more of them in payment for her wheat. That the movements of commerce are not persistently obstructed by variations in the medium of exchange is clearly proved by the statistics of the period under review.

9569. I think you said that you are neither an advocate nor an opponent of bi-metallism?—No.

9570. But you do not want to change anything?—Not in this country.

9571. But at the same time you are not prepared to formulate to us any positive objections to the bi-metallic system?—It appears to me that the chief ground alleged for its adoption for it does not exist.

9572. You say also in your paper, "That the prevalent depression of prices cannot be the effect of an appreciation or scarcity of gold, since a scarcity of gold, which would depress prices through its dearness in use, is non-existent. That a system of international bi-metallism is not required as a remedy for the depression imputed to a scarcity of gold, inasmuch as the existence of such scarcity has not been manifested." Supposing it were shown to you, and you were convinced that bi-metallism might in some degree be a remedy for that evil, am I to assume, then, that you would not object to it?—Certainly. If I found that any nostrum was able to cure a certain disease I should be very foolish if I opposed its adoption.

9573. You expressed the opinion just now that the ratio which you thought might be accepted without objection would be the ratio that was current at the moment?—Yes.

9574. But the ratio at the present moment constantly varies, does it not?—Of course it varies every day with the price of silver.

9575. Well, would that not be rather an arbitrary proceeding, then, to fix it at the ratio it happens to be at a particular moment?—Precisely; but that is the only way in which you could do it. I think you could not go back to an old proportion. It would have this effect of giving the enormous bonus at once to all the holders of silver. The moment you raise the value of silver from the proportion of 1 to 20 to 1 to 15½, you give a bonus to that extent to the holder of silver.

9576. (*Sir T. Farrer.*) Have you ever thought of the effect of a return to the ratio of 15½ to 1 on the silver that is now held by other nations (for instance, the United States) and which passes at a gold value?—I take it that the stock of silver which exists anywhere would, if it were not already, or even if it were already, in a state to be estimated, would have its value raised in the general convention of bi-metallism.

9577. It would if it were current in the world at the gold rate in which silver in the London market is current; but take the case of the silver which is held by the United States, and which is current, or for which certificates are current, as a gold value, would that be altered in value?—I think so. That silver is not capable of being circulated at its legal value now, and it remains therefore in deposit.

9578. Have you thought at all what would be the effect of the ratio of 15½ to 1 upon the debts due

by other countries to this country?—So far as the introduction of silver at the rate of 15½ to 1 into a common unit of value went, it would have the effect of diminishing the value of the debts of other countries to this country, where it is already a sterling debt. We have gold claims over nearly the whole world, and those gold claims, if they were diluted by being brought into a bi-metallic system, would become less effective by the difference between the power of the gold and the power of the blended gold and silver standard.

9579. (*Chairman.*) But why should that be so on the assumption, which is, of course, the assumption of the system of bi-metallism, that in all the leading commercial nations, after the arrangement, the stipulated ratio of silver will buy as much as every commodity as its equivalent in gold, then would it matter to us whether we were paid in the silver or in the gold. It would not be transmitted in the metal in any case; would not it give us the right in any country to just as much commodity as we could have got if it had been still represented by gold only?—I do not think I admit the premises in that question. It assumes that a currency may be indefinitely extended, even so far as regards that which is the standard of value, without affecting its general efficacy.

9580. You think it would affect prices?—I think it would affect prices.

9581. But that would be, of course, a different consideration. If it did not affect the prices in the country it would not matter, would it, whether we got paid in gold or silver. If there was no alteration in the general scale of prices, and if a given amount of silver would buy as much as the old amount of gold, it would not matter whether we got silver or gold. We should really get commodities, and really get the same quantity?—At present the gold claims of this country are valued in gold and gold only, and they have a certain efficacy and purchasing power. If that standard were diluted by the introduction of silver in a given proportion it would no longer be the same standard. I hold that, being mingled with silver of a lower proportionate value than that which it has previously maintained, with the effect of diluting the general value of this standard itself, the new standard would be disabled from purchasing the same quantity of commodities as before.

9582. (*Sir John Lubbock.*) In fact, for any rise in the value of silver which it created there must be a corresponding fall in the value of the gold?—Quite so.

9583. (*Mr. Barbour.*) And, I suppose, you would hold that the breaking of the old ratio of 15½ to 1 did raise the value of gold. If the restoration of it would lower the value of gold, I presume the breaking of it must have raised the value of gold?—That depends on whether you would say that gold was appreciated or silver depreciated.

9584. There was practical fixity of value between silver and gold for a very long time, and when that ceased and the ratio became 20 to 1, did not gold get a higher value than it would have had if the old ratio had been maintained?—I do not think there has been much difference in the value of gold, but it is in silver, owing to the circumstances which affected it in its larger amounts, brought from the mines, and the dealing with silver by the German Government, all had the effect of lowering its value.

9585. (*Sir T. Farrer.*) I gather that you rather regard gold as the stable point, and silver, like commodities, as varying with relation to it?—I do.

9586. And you believe that there has been no fall in prices due to an alleged scarcity of gold?—I can find no evidence of such.

9587. And, on the contrary, you find evidence in the state of the gold reserves of the banks, and the rate of discount, that there has been no such scarcity?—Quite so.

9588. (*Sir John Lubbock.*) I gather that in your opinion, the present ratio of value of gold to silver being 21 to 1, you consider that there would be an injustice in compelling debtors who have made contracts in silver at 21 to 1 to fulfil their contracts at the rate of 15½ to 1?—Decidedly.

9589. Several witnesses have expressed the opinion that, with reference to our commerce, it was very undesirable to make any change in the standard of value unless there was some very strong reason for doing so. Do you concur in that?—I quite agree to that.

9590. It has been said several times here that the fall of 25 per cent. in the price of silver constituted practically a bounty of 25 per cent. upon the production of wheat in India. I gather that you see no reason for any such statement?—I fail to understand how the word bounty has got any place in that position at all.

9591. And, apart from the question of the alleged bounty to India, you cannot see that there is an advantage of 25 per cent. to the wheat grower?—No, I do not.

9592. In your paper I think you rather implied that you thought it might be possible to maintain a fixed ratio of value between gold and silver, assuming that the principal nations of the world were to agree upon one; but having regard to the very great amount of gold which is used in the arts,—it is assumed to be about 12,000,000*l.* out of an annual production of about 20,000,000*l.*,—do you not think that some doubt is thrown upon the possibility of maintaining a fixed ratio between gold and silver?—If bi-metallism were once established, then the proportion never could vary; it would be definitely fixed. Whatever the quantities of the gold or silver might be after that the proportions would be fixed.

9593. But do you not think that the result might be in the first place to diminish the production of gold, and in the second place to drive gold out of circulation and into use in the arts?—No, I do not think so. I do not think that the introduction of bi-metallism would affect the working, either of the gold or silver mines materially. They would both be worked as long as they could be worked profitably.

9594. And a very large use of gold in the arts, in fact, does not affect your belief that bi-metallism might be maintained, provided it were agreed to by all the great nations?—No, it does not.

9595. That is assuming that all the great nations come into the arrangement, is it not?—Oh, yes; it must be general.

9596. (*Mr. Birch.*) Including India?—Of course India's consent must be assumed.

9597. And China; would you consider that China ought to come in?—China is most important.

9598. (*Mr. Montague.*) You say that we have now a large command of gold in debt due from foreign countries. We had also a large command of gold when silver was practically fixed in value. Did we then derive any advantage from the demonetization of silver by Germany and other countries?—No, I do not think our position was affected, except in reference to India.

9599. Would the restoration of a fixed ratio put us to any disadvantage?—No; because the present state of things is one which does not affect the dealings of other countries.

9600. I understand you just now to say that we should be under a disadvantage as we have such a command of gold from abroad?—Well, I said we should be under a disadvantage with regard to our gold claims, because it would be no longer a gold claim; it would be a bi-metallic claim, and that bi-metallic claim would be less, intrinsically, valuable than the gold claim.

9601. Would the difficulties you apprehend from adopting bi-metallism disappear if the market ratio of 20 to 1 were adopted?—Well, I look upon bi-metallism, as I have said in my evidence, as a very pretty theory,

but one upon the future of which I can make no practical comment.

9602. Are you aware that Indian banks are afraid to employ their English deposits, or even their capital in India, on account of the uncertainty of silver in the future?—There is no doubt it may be a restraint to them in their operations; that is the inconvenience.

9603. Do you not see a great advantage, therefore, in developing our trade with silver using countries, seeing that we have difficulty in extending our trade with continental countries through their hostile tariffs?—I do not think that, practically, our commercial operations are diminished in volume. They are more difficult to be carried out; there is a certain difficulty in computation; but, practically, all the business which is to be done is done, and will be done, still under either system.

9604. Is there not a tendency for our trade to be diverted to eastern markets rather than to those near at hand, through the competition of Germany and France?—I am not aware of it.

9605. Do we do as much trade with the continent now as we used to?—I have not got the statistics at hand.

9606. In Russia, discount is maintained at and above 4 per cent. Is not that some evidence that the circulation of rouble notes in Russia is kept within the bounds of the requirements for circulation?—It ought to be an evidence, and I think it is, yes.

9607. And in India they cannot fix the circulation on account of the imports of silver being beyond their control?—Why should they control it?

9608. I do not ask why they should control it, but the countries outside of India have the faculty of increasing the Indian circulation by shipments of silver?—That is to say, they have the faculty of paying to India a very valuable consideration for the produce which they buy there. I see nothing to be regretted in that on the part of India. If India is rich in silver India can use those riches in any way she chooses.

9609. Could India re-sell any silver?—Certainly, they could buy gold or anything they want.

9610. Could they sell it outside of India?—Certainly they could.

9611. Could you tell me where?—London.

9612. If you offered silver in London would there be any buyer?—It depends on the extent of it.

9613. What do you think would be the price?—You cannot tell till you try.

9614. But is it not the fact that India is almost the sole buyer?—The chief buyer.

9615. It is assumed, is it not, that if India were to re-sell silver, that nothing like the present price could be obtained?—I have no knowledge upon that subject.

9616. But, assuming that, do you consider it is a disadvantage to India to make her the sole recipient of nine-tenths of the silver produced in the world?—I do not think that the country would complain of enriching herself by selling so much of her produce for silver or anything else.

9617. Do you think that the English public would object to the circulation of bank notes partly based upon silver?—The English public would not refuse bank notes based upon anything which the Legislature sanctioned. If they sanctioned the issue of bank notes upon pewter the country would take them, but that is simply because they would be upon the credit of the country at large.

9618. It has been stated here that people in this country make engagements to pay in gold. Is that a fact, or are not their engagements to pay in legal tender—in bank notes?—It depends on which engagement you speak of.

9619. If a man accepts a bill, say, for 1,000*l.*, is he bound to pay 1,000*l.* in gold when it comes due?—He is bound to pay 1,000*l.* in that material with

*Lord
Addington.*

9 Dec. 1887.

*Lord
Addington.*

9 Dec. 1887.

which the holder of the bill can get 1,000*l.* in sovereigns in the Bank of England.

9620. But there were occasions on which bank notes could not be cashed in the Bank of England?—I do not know when that was. It has not been within my observation.

9621. (*Mr. Barbour.*) What do you think of a proposal which I may tell you has been made more than once, and seriously considered, of introducing a

gold standard into India?—I could not venture to give an opinion upon it at all.

9622. But you say there would be great difficulty connected with bi-metallism. If it came some day to a choice of difficulties, either of establishing bi-metallism or of the adoption of a gold standard in India, and consequently of a large increase in the demand for gold, it might be a question which of the two evils was the less?—It might be.

The witness withdrew.

Adjourned.

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APPENDICES.

APPENDIX I.

Mr. ALFRED DE ROTHSCHILD to the CHAIRMAN of the COMMISSION.

New Court, E.C.,
4 July 1887.

MY LORD,

THE Governor of the Bank has communicated to the Court the invitation of the Gold and Silver Commissioners to the Directors to offer evidence on the questions now before the Commission, and I as one of the directors beg to avail myself of that privilege. I trust, however, that your Lordship will excuse me if I do not do so at any great length; to do so would entail entering into a great many statistics, and would likewise mean dealing with details and figures which I would infinitely rather leave in more competent hands. But the broad question of whether the introduction of bi-metallism into this country would be desirable, is one which may be approached even by a humble individual like myself.

I am strongly opposed to any radical change as regards the metallic circulation of Great Britain. In the first place, I hold that the progress of civilisation is towards diminishing the requirement of large amounts of bullion instead of increasing the same, and what better proof can you have in favour of my argument than the existence and perfect working of our Clearing House. That institution shows an average weekly return of one hundred millions sterling, which hundred millions sterling mean that *bond fide* transactions to that extent have taken place without the intermediary influence of bullion or even bank notes.

In the face of such a perfect banking system, or rather such very simple means for the exchange of sums of such colossal magnitude, does it not seem an anomaly to say there is not sufficient bullion in the country; you must make silver a legal tender so as to enable A, at his option, if he owes B, 50,000*l.*, to discharge his debt by delivering at his door so many tons of silver.

As long as the British public has confidence in the notes of the Bank of England, this country will not require any excessive amount of bullion; and the moment that confidence ceases, it is the gold which would be sought for and not the silver.

What would be the position of the Bank of England if bi-metallism were to be introduced throughout Europe? I venture to think, an extremely dangerous one, and if a financial crisis arose, whether from internal or external causes, the Bank would be unable to protect its stock of gold, and would be inundated with silver. This would not, and does not, apply to other countries, because the laws which regulate the statutes of their State banks are not so clearly defined nor so rigorously enforced.

For instance, the Bank of France in ordinary times does not give any really large amounts of gold in exchange for its notes, whilst in extraordinary times it adopts, very promptly, the necessary steps to protect its stock of bullion.

What took place when the late war broke out between France and Germany? The Bank of France not only did not pay its notes in gold, but a quantity of five-franc notes were immediately printed, in addition to which the Bank was authorised to issue more notes than it was legally entitled to according to its charter. This did not prevent, nor would it prevent, the French bankers from drawing bullion away from this market, either by sales of bonds on the Stock Exchange or by getting their bills discounted in the open market here.

As regards Germany, that country has also certainly a gold standard, but it would be difficult, if not impossible, to obtain any large amount of gold from Berlin or from any of the branches of the Imperial State Bank.

Then again, as to Italy, there is a large amount of gold stored away there, but, as in reality it does not see daylight, that country might as well not have departed from its paper currency.

Therefore, to sum up the situation in a few words, London being the centre of the financial world, we have to be doubly careful to protect our stock of gold; but if bi-metallism were introduced throughout Europe, we should have much greater difficulty in doing so, and should be obliged to increase our stock of silver, whether it suited us or not.

Whilst feeling very strongly on these points, there can be no doubt that there are grievances both in India and China in connexion with the silver question, and if anything could be done towards diminishing those grievances it would be extremely desirable.

To find, however, a remedy for both past and present grievances would be difficult, if not impossible, but as regards the former, old contracts in connexion with pensions, &c., might be revised, whilst as regards present grievances, the fact of the rupee having fallen considerably below its original value is not in itself more unfair than the exchange fluctuating between this and any other country. That something ought to be done for India there can be no doubt; but it hardly seems to me a sound argument to say that because a grievance exists in that country it would be advisable to introduce into this country that which might prove a very dangerous experiment.

I beg to remain,
my Lord,

Your Lordship's very faithful
and most obedient servant,

(Signed) ALFRED DE ROTHSCHILD.

The Right Hon. Lord Herschell,
&c., &c.,
President of the Royal Commission
on Gold and Silver Currency.

APPENDIX II.

MEMORANDUM by Mr. J. BARR ROBERTSON on the RISE and the FALL of PRICES in consequence of INCREASE or DECREASE in the VOLUME of the CURRENCY.

Changes in the average prices of commodities are due to two causes, (1) to changes in the quantity of money per head of the population and to the greater efficiency of money through banking and other expedients for economizing money; and (2) to changes in the condition of supply and demand as affecting commodities, irrespectively of changes in the volume of the currency per head of the population, or of the greater or less efficiency of money.

As supply and demand will both vary for each single commodity by itself, the price of each commodity will constantly vary as regards every other commodity. These variations are due to natural causes, and therefore, in this country we have considered it wise not to interfere in any way with the action of supply and demand. The variations in prices due to changes in supply and demand are the chief means by which the production and distribution of commodities are regulated, while currency changes, affect all prices equally, and, therefore, would be shown not in the price of each commodity, but in the index number representing the average prices of commodities generally.

But changes in the quantity of money are due entirely to law, to the law of legal tender. Governments have undertaken to set up a standard of value, but, instead of this standard being regulated so as to provide a money of approximately steady purchasing power, it was in this country arbitrarily fixed in 1816, and with the exception of minor changes in 1844 it has never been altered; so that in the changing conditions of the last 70 years there have been great variations in the quantity of money per head of the population, which worked injustice; and wide fluctuations upwards and downwards in the index number representing the average prices of commodities.

A perfectly just money system would be one of steady purchasing power as regards the average prices of staple commodities, that is, a system with as near as possible a fixed index number, and the nearer we can approach to this the nearer we shall have come to justice in monetary affairs. Under the present system we have at one period a large increase of money, at another a considerable decrease, involving inflation of prices and contraction of prices, and it becomes important to trace out how prices fall in consequence of a deficiency of money, and rise in consequence of an excess of money.

Let us examine, then, how the volume of money in this country has diminished in the last 11 years, and how average prices have fallen in response to the diminution of money. During that period we have not received any net imports of gold; but, on the other hand, we have exported 1,200,000*l.*, besides the amount of gold carried out of the country by travellers, which is much larger than the amount brought in by travellers. If, therefore, we have received 56,000,000*l.* less of gold in the last 11 years than we should have had if we had received during these years the same annual supply as we had in the 10 years 1866 to 1875, the question arises as to how this deficient supply has acted on prices.

The following are the figures in regard to gold in the United Kingdom—

	1866-75.	1876-86.
	10 years.	10 years.
	£	£
Total Imports	190,900,000	152,300,000
Total Exports	140,800,000	153,500,000
Net Imports	50,100,000	—
Net Exports	—	1,200,000

The absence of the gold which ought to have come into the country was felt in two ways, (1) there was none imported to supply the consumption in the arts, and (2) there was none imported to provide for the wear, tear, and loss of coins, and for new coinage. The consumption in the arts was provided for by taking the amount of annual consumption out of the stock of gold coin or bullion. If the consumption in the arts was principally provided for out of new bullion from the bullion dealers, there must have been a corresponding export of gold coin or old bullion, seeing that we exported more than we imported. And this supply for the arts

must ultimately have come almost altogether out of the coinage, because part would be obtained by melting down sovereigns, and the rest must in the end have been taken mainly from the coinage, because in the last 11 years the stock of gold coin and bullion has decreased at least 27,000,000*l.*, that is from 135,000,000*l.* to 108,000,000*l.*, while the stock of bullion has probably not changed much. This caused a steady drain of gold chiefly from the gold money outside of the banks, seeing that the banks when drawn upon for gold coin to export against the imported bullion in the arts, would have to renew their supplies of gold from the general circulation to meet their liabilities, as the fact of gold being withdrawn from circulation would not, in itself, diminish in any way the capital, reserve, or deposits in the banks. That is to say, the withdrawal from circulation of gold for the arts would not affect the deposits in the banks, but the results of such withdrawal leading to lower prices might cause the withdrawal of deposits to meet losses produced by lower prices of commodities. On the other hand, however, there would be an increase of deposits from the savings of the community, and from the special savings which the increased purchasing power of money over commodities would enable the investing classes to effect.

The supply of gold for the arts having been taken from the current stock of that metal during the last 11 years, we have now to consider the exact process by which prices fell in consequence of the decrease in the gold circulation. It is evident that, so far as the capitals of banks and their undivided profits are concerned, these must have remained intact as a whole, and notwithstanding, a gradual diminution in the stock of gold, the reserve of gold kept by the banks in connection with their capital and undivided profits would remain the same, unless they reduced the percentage of gold held against their liabilities.

But the banks receive deposits, and these may be distinguished into two classes, the deposits from investors, annuitants, &c., and those from the mercantile, industrial, agricultural, and landed classes, whose deposits are the working balances of accounts in which the banks discount bills and grant advances. Now, in the case of depositors whose resources beyond their deposits are in good securities, there is no reason whatever why their deposits should have diminished, indeed with the increased command of money over commodities their deposits should have increased. It is evident, therefore, that as good securities have increased in money value during the last 11 years owing to a gradual fall in the permanent rate of interest, and without any regard to quantity of money, and as the deposits of the holders of such securities ought to have increased, the gold reserve in banks against this class of deposits ought to have increased rather than diminished.

With the other class of deposits, those belonging to the trading, industrial, and agricultural portion of the people, the process of contraction of the currency must have very largely diminished their resources, and, therefore, through failures and losses in business, this class of deposits would be diminished, though it must be remembered that these deposits are the mere current balances necessary for carrying on business, and are not deposits placed at the complete disposal of the banks.

This then goes to show that there may be a considerable contraction of the gold currency, and yet little or no change in the gold reserves of the banks.

We must therefore look to the gold circulation outside the banks for the contraction produced by a diminished amount of gold.

While securities, such as consols, and notes held by the banks undergo no change whatever in consequence of a contraction of the currency, low prices for commodities are an invariable accompaniment of a contracting currency.

Let us look at the process by which contraction is effected. The consumers of gold in the arts, carry on their business in times when we have no net imports of gold, by withdrawing sovereigns from circulation, or

causing them to be withdrawn and melted down; or by withdrawing bullion which is potentially coin, seeing that it is in the Bank of England ready to be coined immediately that coin is wanted. If on the other hand, bullion is purchased that is not in the Bank of England, then that is so much that would, but for this purchase have gone into the Bank, as there is no profit in holding gold, seeing that it has one permanent price, namely, the Mint price. Or if it did not go into the Bank, it would be exported, seeing that we are not gaining any new gold by import. In this manner (with no net imports of gold) the quantity of gold in circulation is reduced by perhaps 2,400,000*l.* a year. It is not taken from the Bank of England in large quantities so as to affect the rate of discount, it is not taken from any single fund, but from the circulation generally in the leading cities and towns of the country.

If there are 37,000,000 of people in this country using a certain amount of money for certain transactions in which legal tender money, or money passing as such, is actually used, and if the total amount of such money available for all actual cash purposes is 137,000,000*l.*, then this 137,000,000*l.* of money, or the portion outside of the banks, spread over all these cash transactions, will be distributed on a scale of relative prices that will show the comparative values of all commodities.

On the other hand, if by some sudden operation the 137,000,000*l.* of money were reduced to 100,000,000*l.*, then it is perfectly certain that with the latter amount of money the same cash transactions could not take place except at reduced prices. It would be a physical impossibility to pay the same prices on the same transactions.

There is no more mystery in the method by which money distributes itself over an entire community in proportion to the needs of each person and his ability to supply his money needs, than there is in the method by which all articles are distributed over the country in proportion to the needs of the inhabitants and their ability to pay for the articles. In the fields of commerce, industry, and agriculture there is a change in most wholesale prices of articles every day, and often several times in a day, and at least there is a distinct feeling on the part of the dealers in most articles every day that the market is rather stronger or rather weaker when no change of price takes place. It is also surprising to observe the frequent changes, in many cases daily and even hourly, in the prices of the enormous mass of securities of all kinds. This demonstrates the daily and hourly adaptation of the prices of thousands of millions sterling of wealth to changes in supply and demand as affecting each commodity and each security. If then we see the prices of articles and all securities hourly and daily changing over the whole country, we ought not to feel surprised at the money in the country which every inhabitant and every business firm must have more or less, distributing itself and re-distributing itself with incessant activity in accordance with the total available quantity of money, the demand for it, and the ability of each person to pay for the amount which he demands, that is, by services or some other equivalent.

But with 100,000,000*l.* of money, prices of commodities can no more remain at the same average figures at which they stood when the amount of money was 137,000,000*l.*, than 100,000,000 bushels of wheat could give each individual of 37,000,000 people the same amount of wheat as 137,000,000 would give.

While the currency is being contracted in consequence of sovereigns being withdrawn, it is manifest that the first effect of this is that there is not money enough to carry out the retail transactions at current prices. There will therefore ensue a falling off in the demand for commodities, and this falling off will immediately be felt in the wholesale markets. This diminished demand without any diminution in the supply will inevitably cause a fall in wholesale prices. The fall first shows itself in wholesale prices, but the cause is that there is not enough money to pay the same retail prices for the usual quantity of articles, and thus the current supply of articles can only be disposed of at such a reduction in prices as will enable the normal amount of articles to be paid for by the smaller amount of money available.

We are now reasoning on the basis that as our prices have fallen, prices have similarly fallen in other gold money countries, otherwise we should have had foreign countries sending gold here to purchase at our lower prices. As we have not gained any gold by import in the last 11 years, it is clear that there has been a corresponding fall in prices in all gold standard

countries, and therefore this fall in prices is due to a cause which has been in operation in all the gold-money countries.

The amount of gold in circulation here has diminished, and the amount of the gold standard has diminished in all other gold countries, because the stock of gold in the countries which were on the gold standard in 1870 has had to be reduced so as to give a stock of gold to Germany, the United States, Norway and Sweden, Holland, Italy, &c., which in 1870 were not on the gold standard, and had at that time but little gold.

If, however, instead of gold being withdrawn annually to the extent of 2,400,000*l.*, an amount of 20,000,000*l.* had, let us suppose, been exported from the country in two years to provide for gold coinages in countries adopting gold. This would have involved a diminution of 20,000,000*l.* by export, of 4,800,000*l.* in the arts; and further, there would have been no gold to provide for wear and tear of coin, or for the wants of an increased population, so that prices would have fallen very greatly.

The 20,000,000*l.* of export would have been demanded from the Bank of England. Any foreign country wishing to get gold could sell 20,000,000*l.* of its securities and have the proceeds put to its credit at the Bank. If 20,000,000*l.* were to be demanded within two years, the gold reserve at the Bank being an average amount, the Bank would undoubtedly be compelled to raise its rate of discount, and if the foreign government persisted in withdrawing the gold, a severe monetary crisis would supervene in England, which would certainly require the suspension of the Bank Charter Act.

When the Bank had only its usual gold reserve, say about 22,000,000*l.*, a withdrawal of 20,000,000*l.* for the purpose of being locked up abroad would be impracticable. The Bank would require to call upon the Government to suspend the Bank Charter Act, and it would then refuse to pay in gold and would tender notes instead.

There would, however, be a tremendous strain on the gold circulation. The high rate of discount would diminish applications for discounts, and the banks would refuse new business and would strengthen their position by calling in loans or by reducing them. There would be a movement of gold from the provinces to London, and the Bank of England would use every possible effort to bring gold into its coffers. The operations of merchants, manufacturers, agriculturists, &c., would be restricted, there would be a partial paralysis in all business, money would not circulate so freely as before, there would be a falling off in the demand for commodities, and prices would consequently fall. There would be a diminution in the funds for the payment of wages, there would be short time in factories, the shopkeepers would have less activity in their business, and in the absence of demand, wholesale and also retail, prices would fall until they had adjusted themselves to the contracted currency. And as the fall in prices was due to a permanent contraction of the currency, this fall would be permanent; whereas if the fall were due to some mere temporary monetary crisis or unusual conditions, prices would rise again as soon as the abnormal causes had ceased to operate.

I have now shown how prices fall over a period of years when we have not received any gold by net imports from abroad, by two different operations, (1) by a withdrawal of sovereigns from the gold circulation generally, and (2) by withdrawal of gold coin or bullion from the Bank of England to be exported abroad, which must however be replaced in the Bank by withdrawals from the circulation.

Prices may also fall in consequence of a deficient supply of gold, so that we may import large amounts of gold and yet have falling prices because we do not import enough.

The next question to be considered is, how average prices rise in consequence of excessive supplies of gold. All gold from abroad, whether deficient, normal, or excessive in amount, must practically pass into the Bank of England, because the Bank is the one great customer that is bound immediately to pay cash for any gold that may be offered, and the price is fixed and always the same, and therefore there can be no profit for importers in holding it. The gold that comes into the Bank from abroad and is afterwards exported, does not enter into the present discussion, as it has no real influence on prices, its effect being confined to a temporary increase in the gold reserves of the Bank, and to a temporary lowering of the rate of discount.

The gold which has an effect on prices is that which

remains in the country and passes into active circulation.

An importer of gold having deposited a shipment at the Bank of England gets credit for the value in his account with the Bank, or he may take a cheque on the Bank and pay it into his account at some other bank. If importations of gold take place on a considerable scale, and pass into the Bank, the latter will have to lower its rate of discount, not, however, in the hope of causing gold to be exported, because we are assuming that there is an increased supply of gold, and that it is flowing into all the gold-money countries; but in order that the lower rate of discount may cause a larger demand for discounts. Thus the Bank will get rid of, say, 60 per cent. of the new gold or of notes redeemable in gold. But the money obtained by these discounts must be used for purposes for which money is actually required, because the supply of gold has positively increased. The business of the country is not now being carried on with the same number of counters, so to speak, as before; there has been an addition of counters. If 10,000,000*l.* of cotton, wheat, and tea had been imported there would have been no addition to the money or the counters in which these would have been valued, and by which they would have been distributed and paid for. But if 10,000,000*l.* of gold come into the country there is a positive addition of so much to the money of the country, and these 10,000,000*l.* will very soon, by the processes of trade, exchange, and prices, be so distributed over the country that the business of the country will be carried on by the former currency and these 10,000,000*l.* more. The 10,000,000*l.* must be distributed in certain proportions between the banks and the gold circulation outside of the banks; but as while contraction of the currency is going on, the gold circulation outside of the banks will be reduced more in proportion to its quantity than the amount in the banks will be reduced in proportion to the quantity they hold; so, while inflation of the currency is taking place, the amount of gold which will pass into circulation outside of the banks will be proportionately greater than what will be added to the reserves of the banks.

The effect of having an increase of gold would be that there would be new money competing for employment; merchants, manufacturers, and others would compete for this new money at a low rate of discount, and its use would cause greater competition in the wholesale markets, and, therefore, higher prices, until average prices had risen to the level of the increased amount of money, that is, to a level of prices at which practically it would take the increased amount of money to pay for the same articles and services which were formerly paid for by a smaller aggregate of money.

Over the entire field of commodities and securities the lower rate of discount would at least temporarily compensate for and be the equivalent of higher average prices, and in the higgling of the markets the lower rate of discount would soon be adjusted to a higher range of prices, and this lower rate of discount would continue until the surplus gold beyond the banks'

requirements was driven into the general circulation of the country and automatically distributed.

But in the case of securities (not including, however, companies earning their incomes in trade or in production) the advance in average prices through a low rate of discount would only be temporary, that is, prices would, as a rule, not follow the quantity of money, but would follow the changes in the rate of discount. On the other hand, however, the low rate of discount caused by an excess of gold that must be forced into circulation would cause increased competition over the whole field of commodities, and, therefore, would cause prices to be raised, and as the money was in existence to raise prices, average prices would rise to and remain at the level of the quantity of money in the country, and would thereafter be only very little affected by changes in the rate of discount, so that in general terms it may be said that average wholesale prices of commodities must follow the quantity of money absolutely, while they will be but very little affected, and then only temporarily, by changes in the rate of discount. On the other hand, retail prices will not be affected by changes in the rate of discount, though they will be materially affected by changes in the volume of the currency.

When, therefore, the excess of gold has been, as it were, absorbed in a higher range of retail prices, the money of the country will be adjusted to its uses at that higher range, and average retail prices will not advance further.

It may also be pointed out that increased amounts of money will also cause new enterprises to be undertaken, giving more active employment to labour and setting many unemployed people to work, and all this must give increased demand for materials and for commodities, and thus raise prices, though not to the same extent as if the new money was applied altogether to its present uses only at a higher range of prices.

In conclusion, I may remark that the words "inflation" and "contraction," as applied to the volume of currency, are historical, as they have expressed the experience of civilized nations from the earliest times; and I know of no reason why in modern times increase or decrease in the currency should not have its full effect in prices of commodities, although it cannot be shown separately by itself, as other elements enter into prices. In looking at a grain of wheat, we are perfectly certain that air, soil, rain, and sunshine have gone to its production; but it is impossible for us to compare a grain of wheat of one year's harvest with a grain of wheat of another, and say in what proportions these elements have contributed to its production, or whether one owed more or less to air, soil, rain, or sunshine than another. So with increase or decrease in the currency, we cannot positively say how much change in prices is due to it, as we have not exact statistics; but we can approximately, and we could with tolerable accuracy, if we had reliable statistics; but increase or decrease is a physical fact like soil, rain, or sunshine, and is as completely represented in prices as any of these is in a grain of wheat.

23rd July 1887.

APPENDIX III.

PAPER laid before the Commission by Mr. H. D. MACLEOD.

TO INVESTIGATE THE RELATION BETWEEN THE STANDARD OF VALUE AND PRICES.

Preliminary Remarks.

'This is as complex and perplexing a question as it is possible to propose.

In the first place it may be remarked that there is not, and there cannot be by the nature of things, a standard of value.

The expression Standard of Value arose from a confusion of Smith and Ricardo on the nature of value, which all economists see to be untenable.

What is meant by the question is, what is the relation of money to prices.

Though there cannot be a standard of value, there may be a measure of value.

The distinction between the two expressions arises from different conceptions of the origin and nature of value.

It is a doctrine maintained by several English writers that all value is produced by labour, and in one part of their works, Smith and Ricardo allege that the value of a thing is the quantity of labour expended in obtaining it, and that if a thing could always be produced by the same quantity of labour, it would be invariable in value.

But such ideas are now abandoned by every economist.

The expression Measure of Value proceeds from the conception that the value of a thing originates in the demand of the consumer, and the measure of value is the quantity of the material fixed upon to measure the desire of the consumer to obtain any object.

The measure of value is money and credit.

The superlative complexity of the question consists in this, that by far the larger portion of the measure of value consists of credit, and in order to obtain even an approximate answer to the question it is necessary to ascertain the ratio which money bears to credit.

All economists acknowledge that credit has exactly the same effect on prices as money.

Bank notes, bills of exchange, and banking credits, payable in gold, have exactly the same effects as an equal amount of gold. Bank notes, bills of exchange, and banking credits, payable in silver, have exactly the same effects as an equal quantity of silver. And the value of these metals, with respect to each other, is affected by the credits of all forms payable in each of them, exactly as by equal quantities of the metals themselves.

Moreover, in estimating prices generally, the quantity of inconvertible paper money must be taken into consideration at its current value in specie.

Credit emanates from two sources: (1) merchants and traders of all kinds; (2) Banks.

It is somewhat remarkable that the great scientific principles and mechanism of credit are not to be found in any work in the English language. The modern system of banking and credit was invented by the Romans, and the complete scientific principles of credit were developed by the Roman lawyers, and are contained in the Pandects of Justinian, and are set forth in every Continental treatise on Jurisprudence, but they have not hitherto found their way into any treatise on economics.

In a subsequent section there are exhibited the juridical principles of credit as developed by the Roman lawyers, which have now been enacted by Statute as law in England.

With respect to banking it is somewhat remarkable that there is not in any language an exposition of the actual mechanism of banking, which is of indispensable importance in determining this question. All the common notions of the nature of banking are entirely erroneous. In a subsequent section there is given an outline of the real mechanism of banking.

Having then determined that the measure of value consists of money and credit, it is necessary to consider the various kinds of purchasable commodities, and these are (1), material things; (2), labour or services; and (3), abstract rights.

The question proposed is not only as abstruse and complex as any in physical science, but its difficulty is enormously increased, because there is no agreement among the best known economists as to the meaning of any one of the fundamental terms which are necessary to its discussion.

It is, of course, only one example of the general theory of value; but, unfortunately, economists are at utter discord with themselves, and with each other, on every point in the theory of value.

To give an answer, therefore, to the question which can even approximate to correctness, it is necessary (1) to explain the fundamental terms involved in its discussion; (2), to give an outline of the theory of value; (3), to explain the nature and system of credit; (4), to explain the nature of banking, of which the common notions are entirely erroneous.

SECTION I.

DEFINITIONS.

ON THE MEANING OF THE WORD WEALTH.

Ancient writers for 1,300 years unanimously held that exchangeability is the sole essence and principle of wealth. That everything whatever which can be exchanged, or bought and sold, or whose value can be measured in money, is wealth, whatever its nature or its form may be.

Thus Aristotle says, Nicomach. Eth. B.v. c. 1: *χρήματα δὲ λεγόμενα πάντα ὅσων ἡ ἀξία νομίσματι μετρεῖται.*

By the term wealth we mean all things whose value is measured in money.

This is a good general definition, fitted to form the basis of a great science, and the whole science of economics is to be developed out of this single sentence.

We have next to ascertain how many different kinds of things there are which can be bought and sold, or exchanged, or whose value can be measured in money.

First there are material things of all sorts: lands, houses, money, cattle, trees, &c. which every one now admits to be wealth.

ANCIENT DIALOGUE TO SHOW THAT LABOUR IS WEALTH.

There is an ancient dialogue named the Eryxias, on the nature of wealth, which, as far as I am aware, is the earliest work extant on an economical subject.

Eryxias observed to Socrates that he had seen the richest man in all Sicily. Socrates asked him what he meant by wealth. Eryxias said that by wealth he meant the person who had most money. Socrates then asked him what kind of money he meant, and said that different States had

different kinds of money which could be exchanged in them and therefore were wealth, because they had purchasing power in them, but were not exchangeable in other places, and therefore were not wealth. Socrates showed that money is only wealth in those places in which it can be exchanged, or has purchasing power, anywhere else it is not wealth.

He then asked:—"Why are some things wealth and some things are not wealth?" "Why are some things wealth in some places and not in others, and at some times and not at others?" He then showed that whether things are wealth or not depends entirely upon human wants and desires; that everything is wealth where it is wanted and demanded; that it is not wealth where it is not wanted and demanded. That, in short, things are only *χρήματα* or wealth where they are *χρήσιμα*; that is where they are wanted and demanded.

He then showed that anything else which enables us to purchase what we want and demand is wealth, for exactly the same reason that gold and silver are.

He instanced professors and persons who gained their living by giving instruction in the various sciences. He said that persons got what they wanted in exchange for this instruction, just as they did for gold and silver; and, consequently, he said, the sciences are wealth *αἱ ἐπιστήμαι χρήματα ὄνται*—and that these who are masters of such sciences are so much the richer *πλουσιώτεροι εἰσι*.

Now in instancing the sciences as wealth, that, of course, is a general term for labour, because labour in economics is any exertion of human abilities or thought, which is wanted, demanded, and paid for. Now labour or thought

cannot be seen or handled, but it can be bought and sold; its value can be measured in money, and therefore by Aristotle's definition, it is wealth.

Thus Socrates showed that personal qualities in the form of labour are wealth, and a person makes an income by the exertion of his skill and labour as an advocate, a physician, an engineer, or the manager of a great commercial company, just in the same way as another person makes an income by selling material commodities.

DEMOSTHENES SHOWS THAT PERSONAL CREDIT IS WEALTH.

But personal qualities may be used as purchasing power in another way besides that of labour.

If a merchant enjoys good "credit," as it is termed, he may go into the market and purchase goods, not with money, but by giving his promise to pay at a future time—that is, he creates a right of action against himself. The goods become his actual property, exactly as if he had paid for them with money; this right of action is the price he pays for them; and this right of action is termed a credit, because it is not a right to any specific sum of money, but only a general right against the person of the merchant to demand a sum of money at a future time.

Hence a merchant's credit has purchasing power exactly as money has. When a merchant purchases goods with his credit instead of with money, his credit is valued in money exactly as his labour may be; and therefore, by Aristotle's definition, personal credit is wealth.

So also Demosthenes says: "δυσὶν ἀγαθοῖν ὄντων πλούτου τε καὶ τοῦ πρὸς ἅπαντας πιστεῦσθαι, μείζον ἐστὶ τὸ τῆς πίστεως ὑπαρχόν ἡμῖν."

There being two kinds of "goods and chattels"—money and general credit, the greater is credit, and we have it.

He also says: "Εἰ δὲ τοῦτο ἀγνοεῖς ὅτι πίστις ἀφορμὴ τῶν πασῶν ἐστὶ μέγιστη πρὸς χρηματισμὸν, πᾶν ἂν ἀγνοήσεις."

If you were ignorant of this, that credit is the greatest capital of all towards the acquisition of wealth, you would be utterly ignorant.

Thus Demosthenes shows that personal credit is *ἀγαθὸν* or goods and chattels, and *ἀφορμή*, or capital.

Thus though personal credit, like labour, cannot be seen nor touched, nor handled, it may be bought and sold, or exchanged—its value can be measured in money—and therefore it is wealth.

It is now clearly shown that personal qualities, both in the form of labour of all sorts, and also the form of the credit of our bankers, merchants, and traders, is wealth; and it follows that the credit of the State itself is also national wealth.

ALL JURISTS SHOW THAT RIGHTS ARE WEALTH.

But there is another order of quantities which can be bought and sold, or exchanged, and whose value can be measured in money, and which are therefore wealth by the definition. And it is this order of quantities which requires the greatest attention, because it is with respect to them that modern economists are chiefly at fault, and it is with them that the most important questions in modern economics are chiefly concerned, especially the question before the present Commission; therefore the subject requires to be fully treated.

Suppose that I pay a sum of money into my account with my banker, what becomes of that money? It becomes the absolute property of my banker. I transfer to him the absolute property in the money, but I do not make him a present of it, I get something in exchange for it; and what is that something? In exchange for the money, my banker gives me a credit in his books, that is, he gives me a right of action to demand an equal sum of money from him at any time I please.

This right of action is termed a credit, and it is the price the banker pays for the money; and if I write that right of action down on paper in the form of a cheque, that cheque may circulate in commerce and effect exchanges exactly like so much money, until it is paid off and extinguished.

So if a merchant buys goods on credit by giving in payment for the goods a right of action against himself to demand so much money at a future time, that right of action is the payment for the goods, and the owner of it may write it down on paper in the form of a bill of exchange, and that bill of exchange may circulate in commerce, and effect exchanges exactly like so much money until it is paid off and extinguished.

Thus a right of action written on paper in the form of a cheque or bill of exchange is itself an independent article of property or a vendible commodity, and may be bought and sold exactly like a piece of money, or a horse, or a watch, or any other material commodity; thus, a credit is itself a saleable commodity like any material chattel.

It will also be convenient to state here that this right of action or credit is also termed a debt. The subject of credit and debt will be more fully explained further on. It is sufficient to state here that the words credit and debt are used perfectly indiscriminately, in English law and common usage, to mean the creditor's right of action to demand a sum of money from a person.

But there are a great many other kinds of abstract rights which can be bought and sold or exchanged, and whose value can be measured in money, and are therefore wealth.

Suppose that the State wants money for some public purpose, such as a great war, or to execute some public work, it buys money from any person who is willing to sell it to it, and in exchange for the money it gives the subscribers certain rights to demand a Series of future payments from the nation. These rights in popular language are called the funds, and the public creditors may sell these rights to any one they please. These rights may be bought and sold like any material chattels. They are vendible commodities, and therefore wealth by the definition.

Suppose that any one wishes to subscribe to the capital of a public company, banking, railway, canal, dock, or any other, the money he pays becomes the property of the company in its corporate capacity, and in exchange for the money he receives certain rights to share in the future profits to be made by the company. These rights are termed shares, and the shareholder may sell his right to any one else. These shares may be bought and sold like any material chattels. They are vendible commodities, and therefore wealth by the definition.

Suppose that a trader establishes a successful business of any sort, besides the house or premises in which the business is carried on, and the material goods in his shop, he has the right to receive the future profits to be made by the business. This abstract right is termed the goodwill of the business, and it is part of the trader's assets, over and above the material goods in the shop, and he can sell it for money to any one else. Its value can be measured in money, and therefore it is wealth.

When an author publishes a successful work, he has the exclusive right of publishing the work, and receiving the profits made by it for a certain time. That right is termed copyright, and is a property quite separate from the printed volumes. And the author may sell that copyright to any one he pleases, like a material chattel. Its value can be measured in money, and therefore it is wealth by the definition.

When a professional man establishes a successful business he has the right to receive the future profits to be made by it. This right is called a practice, and he can sell it to any one else. Its value can be measured in money, and therefore it is wealth.

There are also a considerable number of other abstract rights of a similar nature, which can all be bought and sold, and are therefore wealth, which it would be too long to enumerate, as it is not necessary to enumerate them all, but only to direct attention to a particular class of saleable quantities.

Now all these rights cannot be handled nor seen, nor transferred by manual delivery in that form; but they can all be bought and sold; their value can be measured in money, and therefore they are all wealth.

But all these rights may be written down on some material, such as paper or parchment, and then they may be transferred by manual delivery, like any other material chattel; in fact, then, they become material chattels.

And because all these rights can be bought and sold, because their value can be measured in money, all Jurists expressly class them under the terms "wealth," "goods," "goods and chattels," "vendible commodities," "incorporeal chattels," and "incorporeal wealth."

Thus, in the great code of Roman law, named the Pandects, it is laid down as a fundamental definition.

Dig. 50, 16, 222. "Pecuniæ nomine non solum numerata pecunia, sed omnes res, tam soli quam mobiles, tam corpora quam JURA continentur."

Under the term wealth, not only ready money but all things, both immovable and movable, both corporeal things as well as rights are included.

Dig. 50, 16, 6. Nominis et rei appellatio ad omnem contractum et obligationem pertinet.

The term debt and property is applied to all contracts and obligations.

Dig. 50, 16, 21. Princeps bona concedendo videtur etiam obligationes concedere.

The Sovereign in granting "goods" also grants obligations.

Dig. 50, 16, 23. Rei appellatione et causæ et jura continentur.

Under the term property both rights of action and rights are included.

Dig. 50, 16, 49. *Æque bonis admunerabitur si quid est in actionibus nam hæc omnia in bonis esse videntur.*

Rights of action are justly counted as "goods" . . . for all these things are included as "goods."

So Ulpian says : Lib. 34 ad edict. *Nomina eorum qui sub conditione vel in diem debent, et emere et vendere solemus. Ea enim res est quæ emi et venire potest.*

We are accustomed to buy and sell debts payable at a certain event and on a certain day. For that is wealth which can be bought and sold.

So Colquhoun in his summary of Roman law, says that under the term *Merx* is included anything whatever which can be bought and sold, no matter whether it is movable or immovable, corporeal or incorporeal, existent or non-existent, such as a horse or a right of action, servitude, or anything to be acquired, or the acquisition whereof depends on chance.

Thus in Roman law, abstract rights of all sorts are included under the terms *pecunia*, (wealth), *bona*, (goods and chattels), *res*, (property), and *merx*, (merchandise).

The Pandects were published in the year 530 A.D. at Constantinople, but while the official language was Latin, the people were Greek, and the Latin Pandects soon fell into desuetude. They were superseded by Greek translations and treatises, and at last in the ninth and tenth centuries under the Basilian dynasty, they were entirely superseded and set aside as obsolete ; a new digest or revised code was published in Greek, called the *Basilica*, which has remained to the present day as the common law of all the Greek population of the east, and in the *Basilica* these definitions are repeated.

Basil. 2, 2, 204. *τῷ ὀνόματι τῶν χρημάτων οὐ μόνον τὰ χρήματα ἀλλὰ πάντα τὰ κινητὰ καὶ ἀκίνητὰ καὶ τὰ σωματικὰ καὶ τὰ ἀσωματικὰ δίκαια δηλοῦνται.*

Under the term *χρήματα* rights are included.

Basil. 2, 2, 21. *τῇ τοῦ πράγματος προσηγορίᾳ καὶ αἴτιαι καὶ τὰ δίκαια περιέχεται.*

Under the term "goods and chattels" both rights of action and rights are included.

Also in Greek Law abstract rights are included under the terms *ἀγαθὰ* (goods), *οὐσία* (estate), *ἀφορμή* (capital), *οἶκος* (estate), and they are called *οὐσία ἀφάνης*, invisible wealth.

It is the same in English Law. In the old law of Normandy it is expressly said that rights of action are included under the term chattels.

Thus Sheppard says under "chattels" "all kinds of " emblements, cut and growing, grass cut ; all money, " plate, jewels, utensils, household stuff, debts, wood cut, " wares in a shop, &c., &c. , are accounted chattels.

"All right of action to any personal action is a chattel."

So in the reign of Elizabeth, it was resolved by Popham, L.C.J., and the court "personal actions are as well included " within the word ' goods ' in an Act of Parliament [as goods " in possession."

So in another case Lord Hardwicke said : " And debts " come within the meaning of the Act, and would pass in a " will thereby."

Burnet, J., said " A bond debt is certainly a chattel.

Parker, L.C.B., said " But ' goods and chattels ' include " debts things in action are considered goods " and chattels."

In English law all property consisting in mere abstract rights, such as debts, the funds, rights of action including bank notes, bills of exchange, shares in commercial companies, copyrights, patents, the goodwill of a business, a practice, &c. are included under "goods and chattels" "vendible commodities" "incorporeal chattels" and "incorporeal wealth."

The principle which is the basis of the theory of credit and of all incorporeal property, is that every future profit from whatever source it arises, whether from land or from personal industry, has a present value ; and that present value can be bought and sold, or can be measured in money, and therefore by the definition which the ancients unanimously held for 1300 years, that present right, or the present value of the future payment, is itself an independent article of wealth, quite separate and distinct from the future payment itself.

Reflection will show that there is nothing which can be bought and sold which is not of one of these three forms—either it is a material chattel, or it is a service of some kind, or it is an abstract right.

Hence taking money as the type of all material things Labour as the type of services of all kinds

Credit as the type of all incorporeal property ; wealth is seen to be of three forms, money, labour, and credit.

It is thus seen that there are three, and only three, orders of exchangeable or economic quantities, and these three orders of quantities can be exchanged in six different ways :—

1. A material thing can be exchanged for a material thing—such as gold money for corn or jewelry.
2. A material thing can be exchanged for labour—as gold money for labour.
3. A material thing can be exchanged for a right—as gold money for a bill of exchange, copyright, &c.
4. Labour can be exchanged for labour—as when two persons agree to render each other services.
5. Labour can be exchanged for a right—as when services are paid for in bank notes.
6. A right can be exchanged for a right—as when a banker discounts a bill of exchange by giving a credit in his books.

These six distinct kinds of exchange constitute the science of exchanges or of commerce in its widest extent, and in all its forms and varieties.

The law which regulates the exchangeable relations of these quantities is termed the law of value ; and the least acquaintance with the principles of natural philosophy shows that there can be only one grand general law of value which governs all exchanges in all their multiplicity and complexity.

Thus for 1,300 years the ancients held that exchangeability is the sole essence and principle of wealth ; that everything whatever which can be bought and sold is wealth. Now for a thing to be exchangeable there must be a demand for it ; hence ancient writers unanimously held that demand is the sole origin of value. There is not to be found in any ancient writer the trace of such a doctrine, that labour and materiality are necessary to wealth and value. I shall now show that modern writers have at length come exactly to the same conclusion ; and it is by adopting this principle only that the question before the present Commission can be solved.

ON THE DEFINITION OF WEALTH IN MODERN TIMES.

The principle that exchangeability is the sole essence and principle of wealth was unfortunately totally lost sight of in modern times, until at last modern economists have come to the same conclusion.

For many centuries money was held to be the only wealth, which was the cause of numerous commercial wars for centuries.

About the end of the seventeenth century it was seen to be absurd to restrict the word wealth to money alone, and it was extended to mean all the material products of the earth which conduce to the welfare and comfort of mankind.

ORIGIN OF POLITICAL ECONOMY IN MODERN TIMES.

Political economy was founded as a science by a sect of illustrious French philosophers who, in 1759, published a code of doctrine.

They originated the expression " production, distribution " and consumption of wealth," and it is necessary to explain clearly what they meant by this expression, because all the differences of opinion which at present prevail on the nature of economics have arisen from modern writers having completely misapprehended the meaning of that expression as explained by its originators.

The term wealth, the Economists, as this sect were called defined to mean the material products of the earth which are brought into commerce and exchanged, and these only.

They drew an essential distinction between the products which the owners consumed for their own enjoyment, and those which were exchanged. The former, they termed *biens*, the latter only they termed *richesse*.

Hence, as the ancients did, the founders of economics in modern times held that exchangeability is the essence of wealth, as a technical term. But they restricted it to material products only. They refused to admit that labour and credit are wealth, because they said that to do that would be to maintain that wealth can be created out of nothing. They constantly repeated *ex nihilo nihil fit*. They therefore held that the earth is the sole source of wealth.

Now it is contrary to the laws of natural philosophy to admit that exchangeability is the essence of wealth, and then to restrict it to material products only. Bacon repeatedly points out that when the principle or quality on which a science is founded is once agreed upon, it is necessary to search for and include all quantities in the science which contain that quality, however diverse their forms and natures may be in other respects. And as labour and credit are both exchangeable, and can be bought and sold, it is contrary to the laws of natural philosophy to exclude them from the term wealth. The ancients included both labour and credit under the term wealth, as we have seen, in strict conformity with scientific principle.

The terms " production," " distribution," and " consumption " have now to be explained.

They defined production to be the obtaining the raw produce from the earth and bringing it into commerce.

But this raw produce is seldom fit for immediate use; it has to undergo several intermediate processes of manufacture and transport before it is brought to the person who ultimately purchases it.

All the persons engaged in these intermediate processes they termed distributors.

The person who finally purchased the finished product for use and enjoyment, and took it out of commerce, they termed the consommateur, because *consommer* in French means to complete or terminate, and the purchaser is the person who completes or terminates the transaction.

The whole transaction—the bringing the produce into market, the various changes of form and place it underwent, and its final purchase for use or consumption—the Economists termed commerce or exchange.

An exchange, however, may take place between two parties, and distribution was often used as equivalent to consumption. Hence the expressions “production, distribution, and consumption,” “production and distribution,” and “production and consumption” were all equivalent expressions, and never meant anything else, as explained by the Economists, than commerce or exchange.

Production meant supply, and consumption meant demand; and supply and demand constitute commerce or exchange.

Thus it must be carefully observed that the expression “production, distribution, and consumption” is one and indivisible, and it must not be separated into its component terms. It is in the interpretation of this expression that the whole point in the contest between the modern schools of Economists consists. Considering that these two expressions were absolutely identical in their original meaning, the question is, which is the better term for the science in its enlarged state at the present day?

Even supposing that the term “wealth” is to be restricted to material objects only, a difficulty arises with respect to the first expression. The land itself is a saleable commodity; it may be bought and sold. But how are we to speak of the “production, distribution, and consumption” of land? Whereas it is quite usual to speak of the “supply and demand” of land.

Thus, even if wealth were restricted to material things, the second expression is wider, and far more clear and intelligible.

In fact, the expression “production, distribution, and consumption of wealth” imposes a cast-iron limit on the science; and it was intended to do so; while the second expression is expansive, and includes all commerce in its widest extent.

The Economists refused to allow credit to be wealth, but other contemporary writers did.

The first writer in modern times, that I am aware of, who agreed with Demosthenes in classing credit as wealth, was Bishop Berkeley, who says in his *querist*, “Whether ‘power to command the industry of others (*i.e.*, credit) be ‘not wealth.’”

The French mercantile writers also contemporary with the Economists expressly class credit as wealth.

Melou says:—“To the calculation of values in money must be added the current credit of the merchant, and ‘his possible credit.’”

So Dutot says:—“Since there has been a regular commerce among men, those who have need of money have made bills or promises to pay money. The first use of ‘credit, therefore, is to represent money by paper. The usage is very old; the first want of it gave rise to it. It multiplies specie considerably; it supplies it where it is wanting, and which would never be sufficient without ‘the credit, because there is not sufficient gold and silver ‘to circulate all the products of nature and art. So there ‘is in commerce a much larger amount in bills than there ‘is in specie in the possession of the merchants.

“A well managed credit amounts to tenfold the funds of a merchant, and he gains as much by his credit as if he had ten times as much money. This maxim is generally received among all merchants.

“Credit is, therefore, the greatest wealth to every one who carries on commerce.”

So Junius says:—“Private credit is wealth.”

Franklin says:—“Credit is money.”

The Economists were the first to found a science of economics, but they had no practical experience of commerce, and they never made any attempt to exhibit its actual mechanism. And it has now been shown that even in that age, it was seen that their doctrine of excluding everything from the term wealth except the material products of the earth was untenable.

It was, however, perfectly well understood by all writers of that age, that as a positive science economics is the science of commerce or exchanges.

Thus, Condillac published a work, “*Le Commerce et le Gouvernement*,” and he calls it “*Le Commerce or the Principles of Economic Science*.”

Forbonnais, who was an eminent contemporary of the Economists, published the best treatise on commerce in his day, and he calls it “*Economic Principles*.”

ADAM SMITH.

Smith entitles his work “*An Inquiry into the Nature and Causes of the Wealth of Nations*.”

But most unfortunately he never gives throughout the whole course of it any clear idea of what he means by wealth.

At the end of the introduction he speaks of “the real ‘wealth of the country, the annual produce of the land ‘and labour of the society.’”

We have now to examine whether such a definition can be accepted as the basis of economics as a great science.

In the first place, it is observed, that he has omitted the quality of exchangeability from the definition of wealth, which was the very quality which the economists insisted upon.

It is perfectly obvious that the mere definition of wealth as the “annual produce of land and labour” cannot be accepted as a suitable definition of the term, because if it were so, every useless work done would be wealth. If one were to build a pyramid in Salisbury Plain, would that be wealth? The simplest form of the “produce of land and labour” are children’s mud pies. So that if we accept that definition simply, the way to augment the wealth of the country would be to set all the dirty children in it diligently to make mud pies.

The medium price of an acre of land near the Bank of England is about a million sterling. That land is wealth; but how is it the “produce of land and labour?”

Further on Smith classes the natural and acquired abilities of the inhabitants as fixed capital. How are the “natural and acquired abilities” of the people the “produce of land and labour?”

Smith treats labour itself as a vendible commodity, and he has a long discussion on the price of labour or wages. How is labour itself the “annual produce of land and labour?”

Thus Smith has already broken away from the dogmas of the Economists, who expressly excluded labour from the term wealth, and counts labour as wealth because it is a vendible commodity, exactly as the author of the *Eryxias* did.

After, for several hundred pages, filling the minds of his readers with the notion that wealth is simply the “produce of land and labour” he admits that unless a thing is exchangeable, it is not wealth. Thus, after all, he admits that exchangeability is the real essence and principle of wealth.

Further on, under the term “circulating capital,” he enumerates bank notes and bills of exchange. Now, bank notes and bills of exchange are mere rights of action; they are credit. Thus it is seen that Smith expressly classes credit under the terms wealth and capital, which was what the Economists expressly denied.

Now, how are bank notes and bills of exchange—mere rights of action—the produce of land and labour?

Thus Smith has extended the domain of economics. In conformity with what has been shown of ancient writers, he recognises that wealth is of three forms, material things, labour, and rights. Thus while the economists restricted economics to the commerce of material things, Smith extended it to include the commerce of labour.

He admitted that bank notes and bills of exchange are circulating capital, but he never gave any exposition of the great scientific principles and mechanism of the mighty system of credit and banking, which are the department of economics which concern the present inquiry.

He also says that the object of his work is to investigate the principles which regulate the exchangeable value of commodities.

Thus the subject matter of Smith’s first two books is in reality a treatise on commerce, or the theory of value; and his editor, McCulloch, says in a note, this science might be called the science of values.

This is not the place to explain fully the immense services Smith did to economics; but as regarding the present inquiry, and as a treatise suitable to be placed in the hands of students at the present day, it is necessary to point out that its fatal defect is that the first half of the work is entirely founded upon labour and materiality, a being the essence of wealth, while the latter half adopts exchangeability pure and simple. Now, these two fundamental concepts do not coincide, because there may be

many things which may be the produce of land and labour, which are not exchangeable; and it is a notorious fact that there are multitudes of things which are exchangeable, which are in no way whatever the produce of land and labour.

All the most advanced and independent economists of the present day entirely reject labour and materiality as being necessary to wealth and value, and adhere to the unanimous doctrine of ancient writers that exchangeability is the sole essence and principle of wealth; and that everything whatever which can be bought and sold is wealth.

Another fatal defect of Smith's work as a scientific treatise, that it is totally wanting in unity of principle, which was indeed the cause of Ricardo's work.

RICARDO.

Ricardo was the first economist in this country who perceived the necessity of reducing the laws of value to general principles. He calls his work "The Principles of Political Economy and Taxation." The part relating to political economy is nothing but a treatise on prices or on value.

Ricardo, then, understood that political economy is *au fond* the theory of value, in accordance with all writers up to his day. But unfortunately his work is not a treatise on value in general, but only on a very small part of it. He deals only with material things, and only with a certain portion of them—those only which are the produce of human labour. He expressly restricts his investigation to the principles which govern the value of "commodities" which can be increased in quantity by the exertion of "human industry, and on the production of which competition operates without restraint."

Having then excluded all things from his consideration except those which are the produce of human labour, he lays down the dogma that labour is the foundation of all value, a dogma which the slightest consideration will show is utterly untenable, even as applied to material objects, because there are multitudes of material objects which have value which are not the produce of labour at all. However, it will be more convenient to discuss Ricardo's doctrines further on.

The last writer who need be cited in this place is Whately. In his lectures at Oxford he says:—"A. Smith has designated his work a treatise on the 'Wealth of Nations;' but this supplies a name only for the subject-matter, not for the science itself. The name I should have preferred as the most descriptive, and on the whole least objectionable, is that of *Catallactics*, or the science of exchanges."

"Man might be defined as 'An animal that makes exchanges.' . . . And it is in this point of view alone that man is contemplated by political economy. This view does not essentially differ from that of A. Smith, since in this science the term wealth is limited to exchangeable commodities, and it treats of them so far forth only as they are, or are designed to be, the subject of exchange. But for this reason it is perhaps the more convenient to describe political economy as the science of exchanges, rather than as the science of national wealth. For the things themselves of which the science treats are immediately removed from its province if we remove the possibility, or the intention of making them the subject of exchange, and this, though they may conduce in the highest degree to happiness, which is the ultimate object for the sake of which wealth is sought. A man, for instance, on a desert island, like Alex. Selkirk, or the personage his adventures are supposed to have suggested, Robinson Crusoe, is in a situation of which political economy takes no cognizance, though he might figuratively be rich, if abundantly provided with food, raiment, and various comforts, and though he might have many commodities at hand which would become exchangeable, and would constitute him, strictly speaking, rich, as soon as fresh settlers should arrive."

"In like manner a musical talent, which is wealth to a professional performer who makes the exercise of it a subject of exchange, is not so to one of superior rank who could not without degradation so employ it. It is in this last case, therefore, though a source of enjoyment, out of the province of political economy."

Thus up to this time it was perfectly well understood by all economists that, as a positive science, economics is the science of commerce or of exchanges, or the theory of value. The expression production, distribution and consumption of wealth was an extremely awkward one, but still its originators clearly explained that they meant nothing but commerce or exchanges by it.

So long as there was a general agreement as to its fundamental nature there was good hope of progress, because the ideas of its founders could be expanded, modified, developed and rectified.

Everyone of the other great sciences—astronomy, optics, heat, electricity, &c.—have undergone great revolutions of opinion, modification, rectification, and expansion, and have thus been progressive sciences. And so it might have been at the present day with economics, if economists had steadily kept in view the original conception of the science. The first economists considered only the commerce in the material products of the earth. Smith devoted great attention to the commerce in labour, but, with the exception of a few perfunctory remarks on bank notes and bills of exchange, he does not seem to have the slightest idea of the magnitude and importance of the commerce in rights which is the most colossal branch of commerce at the present day, and includes the whole principles and mechanism of credit, banking, and the foreign exchanges.

So long as it was clearly understood that economics is the science of commerce in general, it was perfectly easy to introduce any new branch of commerce which had not been fully developed.

If the early economists had reflected on the nature of rights, if they had observed that Smith himself classes bank notes and bills of exchange as circulating capital, they would have seen that it is absolutely indispensable to discard labour and materiality as necessary to value, and they would have seen that exchangeability is the sole essence and principle of wealth.

It is evident that under the general term of commerce it is quite as easy and natural to treat of the commerce of rights as to treat of the commerce of material products and labour.

THE SECOND SCHOOL OF ECONOMISTS.

Unfortunately an economist of great distinction introduced a fatal change in the fundamental conception of the science, which threw it into utter confusion, and has arrested its progress up to the present time, but from which all the most independent economists are now emancipating themselves.

J. B. Say, in 1803, published his first treatise on political economy, in which he defined it as the production, distribution, and consumption of wealth; but unfortunately he quite departed from the original meaning of that expression, which was one and indivisible, and originally meant nothing but commerce or exchange.

Say broke up the expression into its separate terms, and completely changed the original meaning of consumption and production; for, while the original meaning of production was offering for sale, and consumption meant purchasing, Say used production to mean adding value to anything, and consumption to mean destroying value; and he has separate and independent chapters on production, distribution, and consumption.

Say himself classes instruments of credit, such as bank notes, bills of exchange, the funds, the copyright of a book, a professional practice, and also natural abilities of all sorts, as wealth.

How is it possible to speak of the production, distribution, and consumption of bank notes, bills of exchange, the funds, or copyright, or practice, or natural abilities?

But all these things can be bought and sold, and come under the expression demand and supply, and are perfectly intelligible when economics is treated as the science of commerce.

Say's work has for nearly half a century moulded the continental view of political economy, and most of the usual manuals and treatises are little more than adaptations from it.

It is evident that so long as the fundamental concept of economics is commerce or exchanges, it is a distinct positive intelligible science, the fundamental law of which is the law of value. But when it is broken up into three parts, it becomes utterly unintelligible as a science. It breaks the back of the whole science; it utterly breaks the back of the theory of value.

JOHN STUART MILL.

J. S. Mill was the friend and pupil of Say, and in a general way Mill's system is moulded on that of Say, though he varies from him in certain particulars.

Mill treats political economy as the production, distribution, and exchange of wealth. Now, in the language of the economists, that is simply "exchange" and "exchange."

In the beginning of his preliminary remarks, he says:—"Everything therefore forms a part of wealth which has a 'power of purchasing.'" Now here we have a perfectly

clear and definite conception of wealth, exactly agreeing with that of Aristotle and all ancient writers. This definition includes all the three orders of exchangeable quantities, and if wealth be anything which has purchasing power, the production of wealth must mean the production of anything which has purchasing power.

A little further on, however, Mill says: "The production of wealth, the extraction of the instruments of human subsistence and enjoyment from the materials of the globe."

It is evident that these two ideas of wealth are quite distinct; in the first, Mill makes exchangeability the sole essence of wealth, and in the second he makes it to consist of the produce of land and labour. Is it the fact that everything which can be bought and sold is extracted from the materials of the globe?

Still further confusion appears further on. He says that it is essential to the idea of wealth to be susceptible of accumulation, and that permanence it necessary to wealth. This is another change of idea. This new condition at once excludes labour from the term wealth.

He then says that he considers only material things as wealth; but in close juxtaposition to this he says that the skill, energy, and industry of the working classes (and why not that of all other classes as well?) are wealth. How are the skill and energy of the working classes material and extracted from the materials of the globe?

Mill says that anything which has purchasing power is wealth.

He then says: "For credit, though it is not productive power, is purchasing power."

"The credit which we are now called upon to consider is a distinct purchasing power independent of money."

"The amount of purchasing power which a person can exercise is composed of all the money in his possession, or due to him [*i.e.*, bank notes, bills of exchange, &c.], and of all his credit."

"Credit, in short, has exactly the same purchasing power with money."

Now if Mill says that, "anything which has purchasing power is wealth;" and if he says: "Credit is purchasing power"; then the necessary inference is that "credit is wealth." He also classes bank notes and bills of exchange as productive capital.

It is thus shown by Mill's own statement that credit and human abilities and bank notes are wealth, and how are they the produce of land and labour, and extracted from the materials of the globe?

In a popular manual it is admitted that wealth is anything which is exchangeable, and then soon afterwards it is said that all wealth is the produce of land, labour, and capital.

It is thus shown that the notions of wealth of all economists from Smith to Mill are utterly vague, uncertain, and contradictory.

The fact is that the expression production, distribution, and consumption of wealth, was expressly restricted to the material products of the earth, and, when labour and rights are included under the term wealth, it becomes unintelligible. The whole system of credit and banking consists in the creation, sale, and extinction of rights of action, and how can that be described as the production, distribution, and consumption of wealth?

THE THIRD SCHOOL OF ECONOMISTS.

All the most advanced and independent economists in Europe and America now see that it is impossible to make economics a science so long as the conception of it as the production, distribution, and consumption of wealth is retained.

They now agree that exchangeability is the true essence and principle of wealth; and that everything whatever which can be bought and sold is wealth; and that by adopting this principle all the difficulties and perplexities which beset the subject disappear.

Land, houses, money, jewelry, debts, the funds, copyrights, shares in commercial companies, and labour or services of all sorts, have value for exactly the same reason—because they can all be bought and sold. The interchange of these three distinct orders of quantities constitutes commerce in its widest extent, and in all its forms and varieties. And it is by adopting this conception alone that the great system of credit and banking can be brought within economics.

The fact is, that economics has burst the bonds of the nomenclature of the first economists. A definition which suits the exchange of material products only becomes unintelligible when it is stretched to include labour and rights. The attempt of economists to discuss these subjects while retaining the old definition was hopeless, and only led to confusion. The fundamental concepts of the

economists will no more fit economics in its present enlarged state than the clothes of an infant will fit a full grown man. As economics now embraces all commerce we must entirely reject the narrow and restricted definition of the economists, and adopt that of commerce which includes all exchanges.

Several modern economists have defined political economy to be the science of exchanges. But there is a general dissatisfaction now with that name. Various other names have been proposed. Whately proposed *catallactics*; others have proposed *plutology* or *chrematology*; but such novel terms as these would not readily be accepted. Economic science is so firmly rooted in the public mind that no good would be got by changing it. Moreover, it exactly expresses the nature of the science. Because *oikos* in Greek is absolutely synonymous with *πλοῦτος* and *χρῆμα*. Throughout the whole range of Greek literature, from Homer to Ammonius, *oikos* means property or estate of every description. It includes not only land, houses, and all material property, but all such property as debts, bank notes, bills of exchange, and all other kinds of incorporeal property. It is the technical term in Attic law for a person's whole estate. The science may, therefore, be aptly termed economics; and this name is now being very generally adopted for it. Economics, then, is the science of commerce or exchanges, and it may be defined thus—

Economics is the science which treats of the laws which govern the relations of exchangeable quantities.

By adopting this conception, it is at once seen how economics is a physical science, because it is a science of variable quantities. It is a new order of variable quantities, and the laws which govern this new order of variable quantities must be in strict harmony with the laws which govern the relation of all other orders of variable quantities. Like astronomy, it is a pure science of ratios.

ON THE MEANING OF PROPERTY.

It is now seen that by the acknowledgment of all Economists, ancient and modern, there are three distinct orders of Economic, or exchangeable quantities: (1) Material things; (2) Personal qualities; (3) Abstract rights typified by the terms Money, Labour, and Credit.

We have now to find a general term which includes all these orders of economic quantities. This general term is Property. The true meaning of this word will throw a blaze of light over the whole science of Economics, and will clear up all the difficulties which have been felt about the word Wealth.

Most persons when they hear the word Property, think of some material things such as lands, houses, money, jewelry, &c., as being Property. This, however, is a corruption of the true meaning of the word, and a very modern one too.

Property in its true meaning is not any material things, it means Absolute Ownership.

In early Roman jurisprudence a man's possessions were termed *Mancipium*. In process of time the word was applied not only to the things themselves but to the Absolute Ownership in them.

Afterwards a new word came into use. All the possessions of the family (*domus*) belonged to the family as a whole; but the *Dominus* or head of the house alone exercised all rights over them. Hence this right of Absolute Ownership was termed *Dominium*.

But in process of time separate members of the family were allowed to acquire private ownership of things; and this right was termed *Proprietas*. *Proprietas* therefore in Roman law meant absolute and exclusive ownership, and was synonymous with *Dominium*.

And for centuries this was the meaning of property in English. In all legal text books up till the middle of the last century, Property was invariably used to mean Absolute Ownership, and was never applied to the material thing itself.

This meaning of property was not only understood by jurists, but also by Economists. An early French economist says, "Property is nothing but the right to enjoy . . . there is but one right of property; that is a right in a person, but which changes its name according to the nature of the object to which it is applied."

Thus landed property means rights to land. Funded property means rights to payments from the nation; personal property means rights to personalty; literary property means rights to the profits from works of literature and art.

So when the Socialists wish to destroy property, it is not the material things they wish to destroy, but the exclusive rights which private persons have in them.

Property means absolute, entire, and exclusive ownership. It is the totality of rights which can be exercised over anything. It comprehends the *jus possidendi*, or right of possession; the *jus utendi* or the right of using the thing in any way the owner pleases; the *jus fruendi* or right of appropriating any fruit or profit from it; the *jus abutendi* or the right of alienating or destroying it; and the *jus vindicandi* or the right of reclaiming it if found in the wrongful possession of any one else.

Then there may be property, or rights, not only in specific material things, but also in things which are not material; as also a property or right to things which have not come into existence or possession at the present time, but will only do so at some future time.

Under the words Property and Res is included everything whatever which a person has a right to.

Thus Smith and all Economists show that a man has property in his own labour.

But just as a labourer has property in his own labour, a merchant and a banker have property in their own credit.

Demosthenes, as we have seen, showed that personal credit is *ἀγαθά*, or goods and chattels. And modern Economists and mercantile writers all include personal credit under the term Wealth.

Thus a merchant or banker's credit is wealth or purchasing power to him just as much as his money; and to ruin his credit in just as great an injury to him as to rob him of his money.

Economic quantities or economic rights are of three distinct orders:—

1. Rights, or property, in some material substance which has already been acquired.
2. Rights or property in labour or services.
3. Rights or property in something which is only to be acquired at some future time.

Now we observe that the first and third of these species of property are opposite or inverse to each other. Property regards the past and the future.

But we may buy and sell a right to a specific thing which has already come into possession; and we may equally buy and sell the right to a thing which is only to come into possession at a future time. Property therefore is of opposite qualities.

Now, in all mathematical and physical sciences it is invariably the custom to denote similar quantities, but of opposite qualities, by opposite signs. Hence, if we denote one of these kinds of property as positive, we may as a distinguishing sign denote the other as negative.

Property in a thing which has been acquired is corporeal property, and property in a thing which is to be acquired at some future time is incorporeal property.

Hence, if we denote corporeal property by the positive sign, it is strictly in accordance with all physical philosophy to denote incorporeal property by the negative sign.

But corporeal property and incorporeal property can all be equally bought and sold or exchanged, the value of each kind of property can be equally measured in money, hence in all systems of jurisprudence, each kind is termed *pecunia*, *res*, *bona merx*, *χρήματα*, *πράγματα*, *οὐσία*, *ἀφορμή*, *ἀγαθά*, goods and chattels, vendible commodities, and therefore wealth.

As in all mathematical and physical sciences the whole science comprehends both positive and negative quantities; so the whole science of Economics comprehends both positive economic quantities and negative economic quantities, both corporeal and incorporeal property. By this means we double the field of Economics as usually treated; we do in Economics what those did who introduced negative quantities into mathematics and natural philosophy. And it is by this means only that the theory of credit, banking, and the foreign exchanges, can be rendered intelligible.

DEFINITION OF VALUE.

Economic quantities are, as we have seen, of three distinct orders or species, any one of which may be exchanged against any one of the others.

Now, if at any time any economic quantity A can be exchanged for any economic quantity B, then each of these two quantities is termed the value of the other.

If at any time one ounce of gold will exchange for 15 ounces of silver, then it is said that one ounce of gold is of the value of 15 ounces of silver; which is simply this equation,

$$1 \text{ oz. gold} = 15 \text{ ozs. silver.}$$

Hence value may be said to be the sign of equality between any two economic quantities.

Hence any economic quantity has as many values as quantities it can be exchanged for; and of course if it can be exchanged for nothing, it has no value.

Value, therefore, by the definition, requires two objects, just in the same way as distance and ratio require two

objects. A single object cannot have value, any more than a single object can be distant or equal. If we are told that any object is distant or equal, we immediately ask distant from what? equal to what? So if it is said that a quantity has value, we must ask value in what? It is clear that as it is absurd to speak of a single object having absolute or intrinsic distance or equality, so it is equally absurd to speak of a quantity having absolute or intrinsic value.

It is now agreed that wealth is anything whatever which can be exchanged; and the theory of value denotes the laws of the relations of exchangeable quantities.

ON MONEY AND CREDIT.

We have now to show the true nature of money and credit.

In the early ages of the world there was no money. When persons traded they exchanged the products directly with each other. The exchange of products against products is termed barter, and it is easy to see what inconveniences that would give rise to.

In the times of the Homeric poems there was no money; but at that time as appears from them an advance had been made beyond mere barter. By that time it had been discovered that it would greatly facilitate transactions to refer the products to a common measure of value. It was usual to estimate things as being worth so many oxen.

This reference to oxen, however, as a measure of value, did not in any way imply the use or existence of money. It is quite usual at the present day for persons to exchange products at their estimated value in a common measure, as money, without any actual money being used.

The necessity for money arises from a different cause. If the products exchanged were always equal in value, there would be an end of the transaction, and there would be no need for money.

But it would often happen that when one person required some products or service from some one else, that other person would not require an equivalent amount of product or service from him in return, or perhaps none at all. If then, a transaction took place with such an unequal result, there would remain a certain balance of product or service due from the one to the other, and this would constitute a debt, that is to say, a right or property, would be created in the person of the one who had received the less amount of product or service to demand the balance due at some future time.

Among all nations and persons who exchange, this result must inevitably happen, persons want something from others while these others want nothing, or not so much from them.

In process of time all nations hit upon this plan; they fixed upon some material substance which they agreed to make always exchangeable among themselves to represent these debts.

That is if an unequal exchange takes place among persons, so leaving a balance due from the one to the other, the person who has received the greater amount of service, gives a quantity of the universally exchangeable merchandise to make up the balance, so that the person to whom the balance of product is due, may get an equivalent, or a satisfaction from some one else.

Suppose that a wine dealer wants bread from a baker, but the baker wants no wine from the wine dealer.

The wine dealer takes the bread from the baker, and gives him an equivalent in this merchandise.

The baker perhaps wants meat or shoes, but not wine, having received the merchandise from the wine dealer, he goes to the butcher or shoemaker, and obtains from them the equivalent of the bread he sold to the wine dealer. Hence the satisfaction which was due to him from the wine dealer is paid by the butcher or the shoemaker.

This universally exchangeable merchandise is termed money, and its true nature is evidently to be a right or title to demand some product or service from some one else.

When a person takes a piece of money in exchange for products or services, he can neither eat nor drink it, nor clothe himself with it, it is of no absolute direct use in itself, its sole use is to be a right or title to demand something from some one else, and the person who receives it in exchange for products or services, only agrees to do so because he believes that he can exchange it away again for something which he does want, whenever he pleases. It is therefore what is termed credit.

Thus a London merchant, F. Cradocke in the time of the Commonwealth says:—

"Having now pointed out the inconvenience of these metals (gold and silver) in which the medium of commerce or universal credit hath been formerly placed.

So Edmund Burke speaks of gold and silver as "The two great recognised species that represent the lasting conventional credit of mankind."

Hence we have the fundamental concept of credit—

"Credit is anything which is of no direct use in itself, but which is taken in exchange for something else, solely in the belief or confidence that we have the right to exchange it away again for something else."

Credit is, therefore, the right or property of demanding something to be paid or done by some person. It is the right to a future payment, and it must be carefully observed that it is the name of a certain species of right or property.

Aristotle, Bishop Berkeley, the Physiocrats, Smith, Thornton, Bastiat, Mill and Jurists have seen the true nature of money.

The subject of money and credit is of such fundamental importance, and so much misconception has prevailed regarding it, that we must show that a whole series of writers have seen the identical nature of money and credit.

Thus Aristotle says—

ὑπὲρ δὲ τῆς μελλούσης ἀλλαγῆς (εἰ νῦν μὴδὲν δεῖται, ὅτι ἔσται ἐὰν δεῖται) τὸ νόμισμα οἷον Ἑγγυητὴς ἐστὶν ἡμῖν. δεῖ γὰρ τοῦτο φέροντι εἶναι λαβεῖν.

But with regard to a future exchange (if we want nothing at present, that it may take place when we do want something), money is, as it were, our security, for it is necessary that he who brings it should be able to get what he wants.

So an old pamphleteer, in 1710, saw the same truth. He says—"Trade found itself unsufferably straightened and perplexed for want of a general specie of a complete intrinsic worth as the medium to supply the defect of exchanging, and to make good the balance where a nation, or a market, or a merchant demands of another a greater quantity of goods than either the buyer hath goods to answer, or the seller hath occasion to take back."

So the great metaphysician, Bishop Berkeley says in his *Querist*—

21. Whether other things being given, as climate, soil, &c., the wealth be not proportioned to industry, and this to the circulation of credit be the credit circulated by what tokens or marks whatever.

24. Whether the true idea of money, as such, be not altogether that of a ticket or counter?

25. Whether the terms crown, livre, pound sterling are not to be considered as exponents or demonstrations; and whether gold, silver, and paper are not tickets or counters, for reckoning, recording, and transferring such denominations.

35. Whether power to command the industry of others (*i.e.*, credit) be not real wealth? And whether money be not in truth, tickets or tokens for recording and conveying such power; and whether it be of consequence what material the tickets are made of?

426. Whether all circulation be not alike a circulation of credit, whatsoever medium, metal or paper, is employed; and whether gold be any more than credit for so much power?

See also *Queries* 441, 449, 450, 459, 475, &c.

It is one of the special merits of the Physiocrats that they saw clearly the true nature of money.

Beaudeau says: "This coined money in circulation is nothing, as I have said elsewhere, but effective titles on the general mass of useful and agreeable enjoyments, which cause the well being and propogation of the human race"

"It is a kind of bill of exchange, or order payable at the will of the bearer."

"Instead of taking his share in kind of all matters of subsistence, and all raw produce annually growing, the sovereign demands it in money, the effective titles, the order, the bill of exchange, &c."

And many other writers of the same school expressed the same idea.

So Smith says: "A guinea may be considered as a bill for a certain quantity of necessaries and conveniences upon all the tradesmen in the neighbourhood."

Smith also expressly includes bank notes and bills of exchange under the term money, in which he is not quite correct.

So Henry Thornton, the eminent banker, says: "Money of every kind is an order for goods. It is so considered by the labourer when he receives it, and it is almost instantly turned into money's worth. It is merely the instrument by which the purchaseable stock of the country is distributed with convenience and advantage among the several members of the community."

Bastiat also saw very clearly this great fundamental truth:—

"This seems the time to analyse the true functions of money, leaving out of consideration the miners and importation."

"You have a crown piece. What does it mean in your hands? It is, as it were, the witness and the proof that you have at some time done some work which, instead of profiting by, you have allowed society to enjoy in the person of your client. This crown piece witnesses that you have rendered a service to society, and, moreover, it states the value of it. It witnesses, besides, that you have not received back from society a real equivalent service as was your right. To put in your power to exercise the right when and how you please, society, by the hands of your client, has given you an acknowledgment or title, an order of the State, a token, a crown piece in short, which does not differ from either titles of credit, except that it carries its value in itself (?), and if you read with the eye of the mind the inscription it bears, you will distinctly see these words: 'Pay to the bearer a service equivalent to that which he has rendered to society, value received, stated, proved, and measured by that which is in me.'"

"After that you cede your crown piece to me. Either it is a present, or it is in exchange for something else. If you give it me as the price of a service, see what follows: your account as regards the real satisfaction with society is satisfied, balanced, closed. You render it a service in exchange for a crown piece; you now restore it, the crown piece, in exchange for a service. So far as regards you the account is settled, but I am now just in the position you were before. It is I now who have done a service to society in your person. It is I who have become its creditor for the value of the work which I have done for you, and which I could devote to myself. It is into my hands, therefore, that this title of credit should pass, the witness and the proof of this social debt."

"It is enough for a man to have rendered services, and so to have the right to draw upon society, by the means of exchange, for equivalent services. That which I call the means of exchange is money, bills of exchange, bank notes, and also bankers. Whoever has rendered a service, and has not received an equal satisfaction, is the bearer of a warrant, either possessed of value, such as money (?), or of credit, like bank notes, which gives him the right to draw from society, when he likes, and where he likes, and under what form he will, an equivalent service."

So Mill says:—"The pounds or shillings which a person receives weekly or yearly are not what constitutes his income; they are a sort of ticket or order which he can present for payment at any shop he pleases, and which entitles him to receive a certain value of any commodity that he makes choice of. The farmer pays his labourers and his landlord in these tickets as the most convenient plan for himself and them."

It is so clearly understood that money is in reality nothing more than a right to demand something to be paid or done, that many jurists expressly class it under the title of incorporeal property.

Thus, Vulteijs under incorporeal property, says,—

Nummus in quo non materia ipsa, sed valor attenditur.

Money in which not the material, but the value is regarded.

That is, we desire or demand other things for the direct satisfaction they give us, but we only desire money for the power it has of purchasing other things.

Thus it is seen that all the writers above-cited clearly saw that money and credit are of the same identical nature.

Hence, gold and silver money may be justly termed metallic credit.

The fundamental nature of money is to be a right to demand something else; but the quantity of matter or stuff which is required to represent any amount of debt, or as the equivalent of any commodity against which it is exchanged, will entirely depend upon the general laws of value.

ON CREDIT.

So long as nations continue in a low state of civilisation, all the credit or money is made of some material substance. But when they advance in civilization, they use credit of another form.

Suppose as above, an unequal exchange. Suppose that instead of the general merchandise called money, the debtor simply gives his creditor a promise to render the balance of service due when required. Then the creditor has the right to demand an equivalent at a future time. But that promise is only a right against a particular person, and the

person may die or become insolvent, and unable to fulfil his promise. But money is a general right against the whole trading community.

Hence, money has general and permanent value, but such an order as just described has only particular and precarious value.

This order, promise or abstract right is what is usually called credit; it is of the same general nature, but of a lower and inferior form to money, and as these rights or orders may be bought and sold equally as money, they are termed: *Pecunia*, *Res*, *Bona*, *Merx* in Roman law; *χρήματα*, *πράγματα*, *πλούτος*, *οὐσία*, *οἶκος* in Greek law; goods and chattels, vendible commodities, incorporeal chattels and incorporeal wealth in English law.

The advantage of adopting exchangeability as the sole essence and principle of wealth is now seen. These rights cannot be handled or seen in that form, but they may be bought and sold even in that form with the most perfect facility.

But if they are written down on paper they can be transferred by manual delivery like any material chattels, in fact, they become material or corporeal property. The whole mass of these rights or debts, whether written down on paper or not, are a vast mass of exchangeable property, they are wealth for exactly the same reason that gold is, they affect prices exactly like an equal mass of gold, and they are the subject of the most colossal commerce of modern times.

ON THE DISTINCTION BETWEEN MONEY AND CREDIT.

Money and credit are then "goods and chattels" or "commodities" of the same fundamental nature; they are each the right, or a title, to demand something to be paid or done by some one else.

No one can compel another person to sell him goods in exchange for money or credit. If therefore a person voluntarily takes money in exchange for goods, it is in reality only credit, because he only takes it because he is sure that he can exchange it away again.

But if a sale or exchange has taken place, and a debt has been incurred thereby, public policy requires that the debtor should be able to compel the creditor to accept something in discharge of his debt. It would cause infinite misery if creditors might arbitrarily refuse the offer of payment of their debts. Hence, in all countries the law declares that if a debt has been incurred, the debtor can compel the creditor some definite thing in payment of it.

Whatever that something is which a debtor can compel his creditor to accept in payment of a debt, is termed money or legal tender.

From this it follows that the same things may be money in some cases, and not in others.

Gold coin is money or legal tender in all cases, and to any amount.

Silver coin is money only to the extent of 40s. If a creditor chooses to take payment of a debt of more than 40s. in silver, it is entirely of his own free will.

In England as between the public and the Bank of England, bank notes are nothing but credit. The bank cannot compel any one to receive its notes; and any holder of its notes can compel it to cash them on demand.

Between private persons a bank note for 5*l.* is not money or legal tender for that exact amount of debt. But for all debts above 5*l.*, bank notes are money or legal tender; but even this is only so long as the bank pays its notes on demand. If the bank were to stop payment, its notes would not be money in any case.

In Scotland and Ireland, bank notes are not money in any case.

If two persons are mutually indebted in equal amounts, payable at the same time, each can compel the other to receive the debt he owes in payment of the debt due to him. Each debt is therefore money or legal tender, in respect of the other.

Thus if two bankers issue notes, and each gets possession of an equal amount of the notes of the other, each can compel the other to receive his own notes in payment of the debt due to him.

Or if two merchants issue acceptances payable on the same day, and each acceptance gets into the possession of the other, each can compel the other to receive his own acceptance in payment of his debt.

Or if a banker issues notes, and the merchant issues his acceptance; and if the banker holds the merchant's acceptance and the merchant holds the banker's notes; each can compel the other to receive his own obligation in payment of the debt due to him.

ON THE CHANNEL OF CIRCULATION.

Money and credit represent the balances which arise from unequal exchanges. The total of these balances is the circulation; and Smith and many others term it the channel of circulation.

This channel of circulation is filled with some material, and prices are estimated in pieces of this material.

The quantity of the material which represents any amount of debt, and is equivalent to any amount of products or services, is determined by the general law of value, and need not be adverted to here.

Suppose that gold is used at any time to represent debt, and to fill the channel of circulation; this gold is divided into certain pieces of fixed weight and fineness, termed coins, and prices are estimated in these coins.

Suppose that gold was discontinued as the representative of debt, and silver substituted for it; suppose that pieces of silver were coined of exactly the same weight as the previous gold pieces, and substituted for them as the representative of debt.

Then, as silver is about fifteen times less valuable than gold, it would require fifteen times as many pieces in silver to represent any amount of debt as it would gold pieces, and prices would rise fifteen fold, but other commodities would still preserve the same relations among themselves.

Suppose, again, that silver was taken away as the representative of debt, and copper substituted, and copper coin struck of the same weight as the previous gold and silver ones, and called by the same name, then prices would be estimated in copper; and as copper is about 900 times less valuable than gold, prices estimated in copper would rise to about 900 times the amount in gold, the relative value of all other commodities remaining the same.

Now, as the value of gold in representing debt depends upon the quantity of the gold which represents any amount of debt, it would manifestly follow that, if the quantity of gold were suddenly increased which represented any amount of debt, the value of gold would greatly diminish. And if gold became as plentiful as silver, it would have no more value than silver, and consequently, even while the weight of the coins and their quality remained the same, gold would fall to the fifteenth part of its former value as a purchasing power.

In a similar way, if gold became as plentiful as copper, it would fall to about the 900th part of its former value.

Thus, in a general way, if a certain quantity of stuff of any sort is used to represent any amount of debt at any time, and if the quantity of stuff is greatly increased while the quantity of debt remains the same, it necessarily produces a great diminution in the value of the stuff, and a general rise of prices.

But the quantity of stuff which represents debts, and fills the channel of circulation, need not be all of the same material; it may be partly gold, partly silver, and partly copper, and prices will be estimated by the whole quantity of stuff which fills the channel of circulation, and not by any particular portion of it.

In modern times a new kind of stuff has been employed to a gigantic extent to fill the channel of circulation, and that is credit, or rights of action in different forms.

Thus the whole quantity of stuff which fills the channel of circulation is comprised of gold, silver, copper, and credit, and in several countries paper money. And the prices of commodities are estimated according to the aggregate of all these different kinds of stuff, and not according to any single one.

It has been shown that credits payable in gold have exactly the same value as gold itself, and credits payable in silver have exactly the same value as silver, whereas paper money has an independent value of its own, just like gold and silver.

Hence the creation and use of credit in modern times produces exactly the same effects, and acts upon prices exactly in the same way as an equal quantity of metal, as is indeed acknowledged by every economist, although its true extent has been very imperfectly appreciated.

It will be shown that in England, the quantity of credit which is used in commerce may be approximately estimated at about fifty times the quantity of metallic coin.

Hence a thorough comprehension of the principles and mechanism of the great system of credit is the very foundation of all modern economics; and it is the changes in the amount of credit created which produces more changes in the prices of commodities at the present time than any other causes whatever.

ON PRICE.

When any economic quantity is exchanged for any other economic quantity, each is termed the value of the other. But when one or both of the quantities exchanged is money or credit, they are termed the price of the other. Price is, therefore, always value expressed in money or credit.

The value of money is the quantity of any commodity, whatever its nature may be which can be obtained in exchange for it; the greater the quantity of the commodity, the greater is the value of money; the less the quantity of the commodity, the less is the value of money.

Or if the commodity is taken as the fixed quantity, the less the money given for it, the greater is the value of money; and the more money given for it, the less is the value of money.

Hence—The value of money varies inversely as price.

The expression value of money has two meanings in commerce.

Commerce consists of two great branches, the commerce of material goods, and the commerce of debts; and the value of money is measured in two different ways in these two branches of commerce.

(1.) In the commerce of goods the quantity of money is compared directly with the quantities of goods.

Debts or credits are, as we have seen, exchangeable commodities, which are bought and sold like any material chattels. When commodities are brought into commerce, they must, for the convenience of sale, be divided into certain units. Coals are sold by the ton; corn by the quarter; tea and sugar by the pound; and other things by the ounce.

As credits or debts are saleable commodities, like any material chattels, they must be divided into units for the sake of convenience in commerce.

The unit of debt is the right to demand 100*l.* to be paid one year hence.

The sum of money given to purchase the unit of debt is its price, and the less the price given to purchase their fixed unit of debt, the greater the value of money; and the more the price given to buy the unit of debt, the less is the value of money.

But in the commerce of debts it is not usual to estimate the value of money by the price paid for the debt. As money naturally produces a profit, the price given for the debt must be less than the debt itself. The difference between the price of the debt and its amount is the profit made by buying it; and this difference or profit is termed discount. And it is clear that as the price of the debt increases or decreases, the profit or discount decreases or increases. In the commerce of debts it is always usual to estimate the value of money by the discount or profit it yields.

(2.) Hence in the commerce of debts the value of money varies directly as discount.

This rule embraces both branches of commerce.

The value of money varies inversely as price and directly as discount.

Hence in the commerce of goods the value of money, means the quantity of the goods; in the commerce of debts it means the discount or profit made by buying the debt.

ON EXCHANGE AND SALE OR CIRCULATION.

The exchange of products against products the economists termed an exchange. They only admitted an exchange to be where each side obtained a satisfaction.

An exchange for a product against money or credit they termed a demi-exchange or sale, or circulation.

Hence they defined circulation to be an exchange in which one or both of the quantities exchanged in money or credit.

ON THE MEANING OF CIRCULATING MEDIUM.

The term circulating medium does not occur in Smith. The first instance that I am aware of is in a speech of Mr. Fox's in 1797, in which he complains of it as a novel term, whose meaning was not very well settled.

The meaning of it is, however, perfectly clear. It is the medium used for circulating or buying and selling commodities, and that medium is money and credit. Hence the circulating medium must mean the whole mass of money and credit in all its forms.

ON THE MEANING OF CURRENCY.

All writers [use the term currency as absolutely synonymous with circulating medium; if, therefore, the meaning of one term can be determined that must also determine

the meaning of the other. The meaning of circulating medium is perfectly clear; and this must also determine the meaning of currency.

The meaning of the word currency has given rise to much difference of opinion in recent times; but to a certain period the meaning attributed to the word was well understood in Parliamentary debates, it was always used to mean money and credit in all its forms. Disputes then arose as to its meaning; and, finally, the Bank Charter Act of 1844 was founded on a peculiar definition of it, which will have to be examined hereafter.

The fact is, that the word currency is a technical term of mercantile and constitutional law, which has been repeatedly explained in the Courts of Law.

The following is the true meaning of current and currency in English law:—

It is a general rule of law that a person cannot transmit to another person a better title than he has himself. It is also a general rule of law that if a person has accidentally lost a thing or has it stolen from him he does not thereby lose his right or property in it. He can not only recover it from the finder or thief himself, but also from any one to whom the thief or finder may have sold or pledged it; even though the purchaser paid the full price for it to the thief or finder, and bought it honestly and without the knowledge that it was not the property of the seller. This is called the *jus vindicandi* in Roman law.

But to this rule, money, from the very necessity of the case, was always an exception. If the owner of the money finds it in the possession of the thief he can reclaim it; but if the thief or finder has purchased goods in a shop with it, and the shop-keeper takes the money honestly in the usual way of business, and without knowing that it has been stolen, he may retain it against the true owner, from whom it has been stolen, even if he can identify it; that is, the property in money passes by delivery.

It is this peculiarity in the law affecting the property in money which passes by delivery, which is denoted by the words current and currency in English law.

And when the representatives and substitutes for money, such as bank notes, bills of exchange, cheques, &c., came into use, the *lex mercatoria*, or custom of merchants, applied to the same doctrine or principle of currency to them. They were treated like money in so far as this, that the property in them passes like the property in money. Thus, if they are lost or stolen the true owner may recover them so long as he finds them in the possession of the thief or finder. But if the thief or finder passes them away for value in the ordinary way of business to an innocent holder, that innocent holder acquires the property in them, and may retain them against the true owner, and enforce payment from them from all the parties liable.

This has been decided in a whole series of cases in the Courts of Law (see *Macleod's Banking*, Vol. II., Chap. XV.).

In *Miller v. Race*, bank notes; in *Grant v. Vaughan*, cheques; in *Peacock v. Rhodes*, bills of exchange; in *Georgier v. Mieville*, foreign bonds; in *Wookey v. Pole*, exchequer bills; in *Whistler v. Foster*, all negotiable instruments; in *Shute v. Robins*, banker's paper; in *Goodwin v. Roberts*, scrip for foreign bonds, were all held to possess the attribute of currency: *i.e.*, that in all of them the property passed by delivery, and it was clearly explained that the word currency means negotiability.

In strict law, then, this principle of currency can only be applied to those rights which are recorded on some material. An abstract right cannot be lost or stolen, mislaid, and passed away in commerce. For a right to be currency in law, it must be recorded on some material so as to be capable of being carried in the hand, or in the pocket, or put away in a drawer, or dropped in the street; and stolen from the drawer, or the pocket, or picked up in the street, and carried off by the thief or finder and sold like a piece of goods.

It is perfectly well settled in law that money and all securities for money possess the attribute of currency.

So far, then, as regards law, there is no difficulty, the meaning of the word is perfectly plain. But if the word currency is used to denote a certain class of economic quantities synonymous with circulating medium, a difficulty arises, because there is an immense mass of credit which has produced exchanges, and has circulated commodities, and is therefore circulating medium, which is not recorded on any material at all in such a way that it can be lost or stolen and passed away by manual delivery.

Thus the gigantic mass of banking credits and the book debts of traders have all effected a sale or circulation, and therefore they are all circulating medium; but they are not currency in a legal sense, because they cannot be lost mislaid or stolen and passed away by manual delivery. So

also private debts between individuals termed verbal credits; they only arise out of the transfer of money or commodities, and they exist equally whether they are recorded on any material substance or not. They are equally circulating medium. The private debts among traders affect prices exactly like so much money. Consequently though they are not currency in strict law, they must all be included under that term when used in a scientific sense in economics, synonymous with circulating medium, because those rights of action are exactly the same in their nature and effects, whether they are recorded on paper or not.

In courts of equity it has been repeatedly held that banking credits pass in a will under the term ready money.

In the debates in Parliament up to a certain epoch, it was universally understood that the term currency included money and all forms of credit, although no one attempted to define its meaning.

Thus Lord Titchfield in 1822 said:—"When it was considered to how great an extent these contrivances had been practised in the various modes of verbal, book, and circulating credits, it was easy to see that the country had received a great addition to its currency. This addition to the currency would have the same effect as if gold had been increased from the mines."

ON LORD OVERSTONE'S DEFINITION OF CURRENCY.

It has been shown that up to a certain period in all the Parliamentary debates it was assumed that the term currency included money and credit in all its forms.

It was at the beginning of the century that the first discussions as to the meaning of currency began. Several of the witnesses before the Committee on the Bank Charter Act of 1832 maintained that bills of exchange and banking credits are not currency. This opinion was more strongly maintained before the committee of 1840, and by more influential witnesses.

As Sir Robert Peel adopted the opinions of these witnesses, and the Bank Charter Act of 1844 was expressly founded on their definition, it will be necessary to state these opinions and examine their validity.

It would be too long to state their opinions at length here. They are given in Macleod's Banking, Vol. II., p. 314. It will be sufficient to state their doctrines simply.

Mr. G. W. Norman, Mr. Samuel Jones Loyd, afterwards Lord Overstone, and Colonel Torrens were the witnesses whose opinions prevailed with Sir Robert Peel.

They maintained then, that metallic coin and bank notes payable to bearer on demand alone constitute the currency or circulating medium of a country. They entirely excluded bills of exchange, banking credits, and all other forms of credit from the term.

The criterion they adopted of currency or circulating medium was that which "closed a debt"; they maintained that money and bank notes payable to bearer on demand alone have this attribute.

It has now to be shown what are the necessary consequences of adopting such a definition of currency.

1. When money is exchanged for goods no debt arises; and if it be said that the money closes the debt which would have arisen on the sale of the goods, it may equally be said that the goods close the debt which would have arisen on the sale of the money. Hence the goods and the money close the debt equally on each side. Hence if the essence of currency be to "close debt," the goods are currency for precisely the same reason that the money is.

2. It is quite common in the city to discharge a debt by stock. By this means the debt is closed; consequently, according to this doctrine, the stock is currency.

3. It is quite common in many cases to discharge a debt by a payment in goods. The goods, therefore, close the debt, and, therefore, they are currency.

4. When money is paid for labour or services of any kind it is an exchange. If the money closes the debt on the sale of the labour, the labour closes the debt on the sale of the money; hence on this principle the labour is currency equally with the money.

5. In all cases of barter or exchange of products the goods on each side close the debt which would have arisen without the exchange; therefore, the goods exchanged on either side are equally currency.

Furthermore, we may test the doctrine by cases of paper documents.

6. Two merchants hold each other's acceptance of equal amount, payable on the same day. They then exchange acceptances, and the debts on each side are closed. Hence these acceptances are each currency.

7. A banker holds a merchant's acceptance and the merchant holds an equal amount of the banker's notes. They exchange the obligations, and the debts are closed. Hence each obligation is currency.

8. A person gives his creditor, who deals with the same banker, a cheque on his account; when the credit is transferred to the creditor's account the debt is closed. Hence the banking credit is currency.

9. A person buys a railway ticket. The company is then indebted to him for a journey. When the company have carried him to his destination the debt is closed. Hence the railway journey is currency.

These are some of the remarkable consequences which follow from Lord Overstone's definition of currency. While he gave a definition which was expressly intended to exclude everything except money and bank notes payable to bearer on demand, the necessary consequence of it is to include everything that is exchanged under it.

Lord Overstone said (Q. 3132):—"Will any man in his common senses pretend to say that the total amount of transactions adjusted at the clearing house are part of the money or circulating medium of the country?"

No one would say that a transaction is money; but every mercantile lawyer would say at once that the banking credits transferred are an integral part of the circulating medium of the country.

The fact is that Lord Overstone, and many other bankers as well, perfectly admit that a banking credit written down on paper in the form of a bank note is part of the circulating medium, but they feel a difficulty in admitting that a simple credit is exactly the same whether it is written on paper or not.

Thus it is seen that Lord Overstone's definition of currency entirely fails; and it is absolutely necessary for the due understanding of the subject to remember that credit in all its forms, whether recorded on paper or not, is circulating medium or currency.

THE QUANTITY OF MONEY IN ANY COUNTRY BEARS NO NECESSARY RELATION TO THE QUANTITY OF OTHER GOODS IN IT, NOR TO THEIR PRICE.

It is often supposed that the quantity of metallic money in a country bears some necessary relation to the quantity of other commodities in it, and also that the prices of commodities are determined by the ratio of their quantities to that of money.

Both these notions, however, are erroneous, as a few simple examples will show.

Somewhere about 50 years ago it was a notorious fact that there a very much larger amount of metallic money in France than in England, and yet prices were very much lower in France than in England, and in Scotland there was less metallic money still, and the reason was that at that time there was an extremely small amount of credit in France, and an extremely large amount of credit in England and Scotland, so that the amount of money bore a very much larger ratio to credit in France than in England and Scotland.

The doctrine that an increased quantity of money leads to an increased amount of price in a direct ratio might have some semblance of truth in a very rude state of commerce, where money was brought into direct competition with commodities only. But as soon as the system of credit comes into use, the conditions of the problem are altered.

When the great gold discoveries took place in the fifteenth and sixteenth centuries, the system of credit and banking was in its infancy. The increased quantity of money did no doubt produce a considerable change in the price of commodities, but the best authorities observed that the rise in prices was only one half what might have been expected from the increased quantity of money.

Even in that age a very considerable amount of the increased quantity of money went in the discount of mercantile bills and loans, and it was also observed that a general reduction in the rate of interest took place.

In modern times the difficulty of tracing the connection between an increased quantity of money and prices is rendered infinitely more complicated, because at the present day the increased quantities of bullion are paid into banks in the first instance, and this has a most powerful effect on the rate of interest.

The fact is that the different effects of an increased quantity of money as it is applied to the purchase of commodities, and to the purchase of mercantile bills and loans, is one of the most profound and complex problems in economics, and has never yet been sufficiently investigated, nor even its importance adequately appreciated, and it would be obviously impossible to do so in this brief outline.

Again the quantity of money necessary in a country depends very much on the method in which trade is carried on.

1. Trade may be carried on without money, *i.e.*, by barter; and there being no money, of course there can be no ratio between money and other goods.

2. Even where money is used a very considerable trade is always carried on by barter. Traders deal with each other and exchange goods according to their value in money; in such cases no money is required.

3. The quantity of money in a country depends to a considerable extent on the methods employed in settling debts.

Suppose that two persons are each indebted to the other in 10%. Suppose that each sends to the other to demand payment of his debt; then it would require each to send 10% to the other to pay the debts.

But suppose that the two persons agree to cancel each other's obligations; then no money at all is required, and the debts are equally settled.

Hence the former clumsy way of settling debts would require 20%, the latter would require no money at all. These 20% would have no influence on prices.

When such transactions as these are multiplied on a gigantic scale, as they are in actual practice, especially in the mutual claims of the great banks on each other, it is evident that an enormous quantity of money may be required or not, just as the one method or the other is adopted in practice. The institution of the clearing house was organised for the express purpose of saving the waste of money under the old system of settling bankers' debts.

The exposition of the system of credit given further on will also show how insignificant a part actual money plays in modern commerce.

ON THE MEANING OF DEBT.

The meaning of the word debt has been the source of great perplexity.

It is one of a class of words which originally meant material things, but which in the progress of jurisprudence has come to mean an abstract right, of which we have already seen an example in Mancipium.

Professor H. Nettleship, of Oxford, informs me that in classical Latin the word *debitum* meant the material thing owed.

But in juridical Latin, the word *debitum* is used as synonymous with *obligatio*, and it includes both the creditor's right of action and the debtor's duty to pay.

In process of time the word *debitum* split up into two parts, and in modern jurisprudence it is used to mean both the creditor's right of action, and the debtor's duty to pay separately.

Foreign jurists term the creditor's right of action the active or positive debt, and the debtor's duty to pay the passive or negative debt.

But in English law and common usage, the word debt is used quite indiscriminately to mean both the creditor's right of action, and the debtor's duty to pay, and it requires constant vigilance to observe in which sense it is used.

It is still a very common error to suppose that a debt is money in the creditor's possession to which the creditor has a right, and therefore not in reality the property of the debtor. But this error must be carefully guarded against.

It is expressly pointed out in the Digest—"Obligationum substantia non in eo consistit ut aliquod corpus nostrum facit; sed ut alium nobis adstringit ad dandum aliquid vel faciendum, vel præstandum."

The essence of an obligation does not consist in this that it makes any specific goods our property, but that it binds some person to give something, or to do something, or to be responsible for something.

Thus the (passive) debt is nothing but the personal duty to pay or do something, and has no reference to any specific sum.

So Williams says—"Every person who borrows money on mortgage or not incurs a debt or personal obligation to repay it."

So Gide well observes—"A debt is not the material object, the money, but the juridical object the duty to pay."

By the twelfth century the word debt had already acquired the meaning of the creditor's right of action.

In 1194, Richard I. issued instructions for a judicial visitation on financial matters in which it was ordered,—

Omnia debita Judæorum inbrevientur terræ, domus, redditus et possessiones.

Let all the debts (*i.e.* rights of action) of the Jews be scheduled, their lands, houses, rents, and possessions.

Item quilibet Judæus jurabit super rotulum suum quod omnia debita sua et vadia, et redditus, et omnes res, et possessiones suas inbreviari faciat.

Also let every Jew swear that he will make a true return of all his debts (rights of action), pledges, rents, and all his property and possessions.

In mediæval charters *debitale* was used in the same sense. In one of 1324 it says—

In omnibus et singulis bonis . . . dominiis, baroniis, censibus, redditualibus, debitalibus, servitutibus, homagiis.

In all and singular goods . . . lordships, baronies, revenues, rents, debts (rights of action), servitudes, homages.

In a Statute of Placentia in 1386 it says—

Nullus homo emat vel aliququaliter acquirat aliquod debitum vel nomen.

No man shall buy or otherwise acquire any right of action or debt.

Thus at that period the words *debitum* and *debitale* had acquired the meaning of the creditor's right of action.

The word debt in English had also acquired the same meaning. It is so used in the Statute of Merchants, Edward I., 1283. So in "*Les Termes de la Ley*," published in 1567, debt is defined as a writ or right of action.

So in the Act, 46 George III. (1806) c. 125. s. 3., it is enacted that "one debt or demand may be set off against another."

So Mr. Williams says:—"Within the class of Choses-in-action was comprised a right of growing importance, namely, that of suing for money due, which right is all that is called a debt, debts being formerly considered as mere rights of action."

So as may be seen in any daily paper, the executors of deceased persons advertise for any persons who have "debts, claims, or demands" against the estate.

In the digest of the law of Bills of Exchange, I prepared for the Law Digest Commissioners, I began with this definition—

Credit or debt in legal, commercial [and economical] language means a right of action against a person for a sum of money.

This double meaning of debt is so well known, that it is used in both senses in the same Act of Parliament.

In the Supreme Court of Judicature Act, 36 & 37 Vict. (1873) c. 66. s. 28., sub-sec. 6., it is said—

"Any absolute assignment by writing under the hand of the assignee of any debt or other legal chose-in-action . . . to revive or claim such debt or Chose-in-action" where the word debt means the creditor's right of action.

But in the same section, s. 1. it is said,—"Whose estate may prove to be insufficient for the payment in full of his debts and liabilities, . . . as to debts and liabilities provable," where the word debt means the debtor's duty to pay."

Hence on all economical discussions, it must be understood that the words credit and debt are used perfectly indiscriminately to mean a creditor's right of action, and that the word debt is used equally to mean the creditor's right of action and the debtor's duty to pay.

ON THE MEANING OF CAPITAL.

Smith enumerates as Capital (1.) Material things. (2.) Personal qualities. (3.) Abstract rights.

Now we do not want an enumeration of what things are Capital, we want a definition of what Capital is.

Capital comes from the Latin, *caput*, which is the source of a spring, or the root of a plant, *i.e.*, the source from which increase flows.

So Stephens says in his *Thesaurus*: *Κεφάλαιον*, *caput*; unde fructus et redditus manat.

Capital, the source from which any profit or revenue flows.

So Senior says: "Economists are agreed that whatever gives a profit is properly termed Capital."

This is a good general definition, and the whatever gives a profit must be interpreted in as wide and general a sense as the anything whose value can be measured in money is in the definition of wealth.

Any economic quantity whatever may be used in two different ways:—

1. The proprietor may use it himself for his own personal enjoyment.

2. He may trade with it, *i.e.*, use it so as to produce a profit.

Any economic quantity whatever which is traded with and used so as to produce a profit is termed Capital.

The definition of Capital, then, is: Capital is any economic quantity used so as to produce a profit.

Economic quantities, as has been seen, are of three distinct orders.—(1.) Material things: (2.) Personal qualities: (3.) Abstract rights.

1. Material things. If a person spends his money on his own personal enjoyment, or his household expenses; such money is not used as Capital.

But if he lends it out at interest, or buys goods with the intention of selling them again at a profit, or if he buys into the Funds, or shares in a commercial company, or a practice, &c., or if he spends it in obtaining a professional education, he uses it so as to produce a profit; and money so spent is Capital. So some persons are the owners of large tracts of land on which London is built; this land produces them a very large revenue; it is, therefore, Capital to them.

2. Personal qualities, both in the form of labour and credit, may also be used in either of the above ways.

Labour. If a man digs in his own garden for his own amusement; or if he sings, acts, or gives lectures for the private delectation of his friends; such labour is not Capital.

But if he trades with his labour, and so earns an income, then such labour is Capital.

Thus his talents and abilities are Capital to any one who earns an income as an advocate, physician, surgeon, engineer, manager of a great commercial company, or in any other profession.

So to a "working man" his labour is his Capital; as Smith, Say, and Mill all allow.

So Huskisson said, "He had always maintained that labour is the poor man's Capital."

Mr. Cardwell said to his constituents, "Labour is the poor man's Capital."

A writer in a daily paper, speaking of the Irish peasants, said, "The only Capital they possess is their labour, which they must bring into the market to supply their daily wants."

Speaking of them, the "Economist," said, "They have no Capital but their labour."

So Mr. Froude says in his "Oceana"; "And the land would be in the reach of poor men, who have no Capital except their labour."

So Cardinal Manning said in the "Tablet," "I claim for labour the rights of Capital. It is Capital in the truest sense."

Credit. If a person uses his credit to purchase things for his household consumption or personal enjoyment, he does not use his credit as Capital.

But if a merchant uses his credit to purchase goods to sell again at a profit he uses his credit as Capital.

When a banker discounts a bill of exchange he creates a credit in his books to the amount of the bill, less the discount; that is, he buys one right of action upon his customer by creating a right of action against himself; and he charges exactly the same price, and makes exactly the same profit, by selling the right of action to his customer as if he had bought the bill with actual money. Hence a banker uses his credit as Capital.

3. Abstract rights. When a person invests his money in the Funds, or in the shares of a commercial company; or in a copyright, or a patent, or in the goodwill of a business, or in a practice, &c.; these abstract rights produce a profit to him just as if they were material commodities. Hence they are his Capital.

It has been shown that bills of exchange are "goods and chattels," "commodities," and they are bought and sold exactly like material commodities.

Smith, under the term circulating Capital, includes the goods in a shop and bills of exchange.

An ordinary shopkeeper makes a profit by buying goods from one person, and selling them at a higher price to someone else.

A banker makes profits by discounting bills of exchange, i.e., he buys the bill from his own customer at a lower price, and sells it at its full price to the acceptor; and thus makes a profit.

Hence the bills of exchange in the portfolio of a banker are circulating Capital just in a similar manner as the goods in a shop are.

CAPITAL MAY INCREASE IN TWO DISTINCT WAYS.

Capital may increase in two fundamentally distinct ways—

1. By an actual increase of quantity; thus, the fruits of the earth, cattle, herds, flocks, poultry, increase by adding to their numbers or quantity.

2. By commerce or exchange; that is, by exchanging away something at a lower value and gaining in exchange something that has a higher value in return for it.

Money is used as Capital, and produces a profit by the second of these methods. Money is used as capital by exchanging it for goods which are sold for a higher price than they cost, or by lending it out at interest, or by employing labour and selling its products for a higher sum than they cost, or by expending it in a professional education which produces an income.

Suppose that a trader buys goods for 100*l.* and sells them for 125*l.*, he first replaces his original capital of 100*l.*, and then he has a surplus profit of 25*l.* He has thus used his money as Capital.

If a trader sees that he could make a profit if he had the means to purchase, if he has no money and no credit, he can purchase no goods and he can make no profit.

Suppose, however, he has credit, that is, if the owner of the goods has confidence in his skill, integrity, and character, he may sell him the goods, and take in exchange for them the trader's promise to pay at a future time instead of actual money.

As the payment is deferred, and there is always some risk of failure in payment, the price in credit is always higher than the price in money. Suppose that the price on credit is 105*l.*, then, as before, he sells the goods for 125*l.*. At the proper time he discharges his debt of 105*l.*, and he has a profit of 20*l.* over. He is better off at the end of the operation by 20*l.* than he was at the beginning, and he has used his credit as Capital.

Now as Capital is anything which produces a profit, and as his money and his credit have equally produced a profit, it necessarily follows that money and credit are equally Capital. Credit has produced exactly the same circulation of goods that cash would have done; hence credit is productive Capital exactly in the same way and in the same sense that money is.

Thus the expression that "credit is capital" which has called forth so much dissent in recent times, simply means that commerce is carried on, and profits are made, by credit, i.e., banking credits and bills of exchange as well as by money.

SECTION II.

THE THEORY OF VALUE.

It is now acknowledged that there are three orders of exchangeable or economic quantities, (1) material things; (2) labour or services; (3) abstract rights; and that these three orders of quantities can be exchanged in six different ways.

The value of any economic quantity is any other economic quantity for which it can be exchanged.

The theory of value is the investigation of the laws which govern the relation of these exchangeable quantities.

The complete theory of value comprehends:—

1. The definition of value.
2. The origin, cause, or form of value.
3. The general law of value, or the general equation of economics.

DEFINITION OF VALUE.

Value in its true and original sense is a desire of the mind; it means esteem or estimation. As Glo'ster says in Lear: "In the division of the kingdom it appears not which of the dukes he values most."

So Troilus, in Troilus and Cressida: "For what is aught but as 'tis valued?"

So Henry Esmond says: "There is some particular prize we all of us value, and that every man of spirit will venture his life for."

So J. B. Say says: "Value is a moral quality."

But such value is not an economic phenomenon. To bring value into economics it must be manifested in some tangible form; a person must manifest his desire, demand, or value for something else by giving something in exchange for it to acquire possession of it.

But as one person cannot gain possession of what another person possesses without giving something in exchange for it which he desires, demands, and values, it is evident that for an exchange to take place requires the concurrence of two minds. It is not sufficient that the demand or value should exist on one side only. If one person desires to obtain possession of what another person possesses, it is not sufficient to constitute a phenomenon of value that he alone should desire it; he must offer in exchange for it something which that other person desires or demands.

If a person brought a cargo of wine among a nation of teetotalers, no one would desire or demand it; no one would buy it; among such a people wine would have no value; so among a nation of non-smokers tobacco would have no value; among a nation of vegetarians beef and mutton would have no value. However much a person would wish to sell his product, if no one will buy it, it has no value. For an exchange or a phenomenon of value to take place there must be the reciprocal desire or demand of two persons, each for the product of the other.

When, however, two persons each desire or demand to obtain the product of the other, and when they agree to exchange their respective products, each product may be considered as the measure of the desire of its owner to obtain possession of the product of the other. The two products, therefore, reciprocally measure the desire of their possessors to obtain the product of the other; and when these persons have agreed upon the quantities of their products which are to be exchanged, the two products are said to be of equal value. Each product is the value or the demand for the other.

Hence it is clear that the true origin and cause of value is reciprocal demand.

Thus, let A and B be any two quantities which are exchanged at any instant, then we may say,—

A valet B;
or, A is of the value of B;
or, A = B.

Then B is the value of A in terms of B, and A is the value of B in terms of A.

Thus Aristotle says: "*ἡ δ' ἀξία λέγεται πρὸς τὰ ἑκτὸς ἀγαθά.*"

Now the term value is used in reference to external things.

So it is said in Roman law: "*Res tanti valet quanti vendi potest.*" "The value a thing is what it can be sold for."

So Le Trosne says that value is a new quality which products acquire when men live in society.

"Products acquire, then, in the social state which arises from the community of men among each other, a new quality. This quality is value which makes products become wealth."

"Value consists in the relation of exchange which takes place between such and such a product, between such a quantity of one product and such a quantity of another."

"Price is the expression of value."

Hence all writers up to this time defined the value of a thing to be anything else (external to itself) which it could purchase.

CONFUSION OF ADAM SMITH ON VALUE.

In Book I., Chap. V., is found the origin of the confusion on the meaning of value, which has had such a baneful effect on English economics.

In this chapter Smith begins by saying that the value of any commodity is equal to the quantity of labour which it enables the owner to command or purchase. Hence, if l denotes labour—

$A = l, 2l, 3l, 4l, \dots$

He then says, in the next paragraph, that is the same thing as saying that it is equal to the produce of labour, it enables him to purchase, or, denoting produce by p , we have—

$A = p, 2p, 3p, 4p, \dots$

In the next paragraph he says that the value of anything is more frequently estimated in money than either in labour or commodities, or, denoting money by m —

$A = m, 2m, 3m, 4m, \dots$

In these passages Smith defines the value of a thing to be something external to itself. Hence it is manifest that the value of A must vary directly as l , p , or m . The greater the quantity of l , p , or m that can be got for A, the more valuable A is; the less of l , p , or m that can be got for A, the less valuable is A. It is clear that if any change whatever takes place in the exchangeable relations between A and these quantities, the value of A has changed.

It is clear, therefore, that there can be no such thing as invariable value. Nothing can have invariable value unless the relations of all other things are fixed also.

Directly after the paragraphs above cited, Smith proceeds to search for that single thing which is to be the invariable standard of value.

He says that gold and silver will not do because they vary in their value—sometimes they can purchase more and sometimes less labour and other commodities. Then he says: "But as a measure of quantity such as the natural foot, fathom, or handful, which is constantly varying its own

quantity, can never be an accurate measure of the quantity of other things, so a commodity which is itself continually varying its own value can never be an accurate measure of the value of other commodities. Equal quantities of labour at all times and places may be said to be of equal value to the labourer. In his ordinary state of health, strength and spirits in the ordinary degree of his skill and dexterity he must always lay down the same portion of his ease, his liberty, his happiness. The price which he pays must always be the same whatever the quantity of goods which he receives in return for it (which by Smith's own definition is the value of his labour). Of these, indeed, it may sometimes purchase a greater and sometimes a smaller quantity; but it is their value which varies, not that of the labour which purchases them (!). At all times and places that is dear which is difficult to come at, or which costs much labour to acquire; and that cheap which is to be had easily, or with very little labour. Labour alone, therefore, never varying in its own value (!) is alone the ultimate and real standard by which the value of all commodities can at all times be estimated and compared. It is their real price: money is their nominal price only.

"But though equal quantities of labour are always of equal value to the labourer (!), yet to the person who employs him they appear sometimes to be of greater and sometimes of smaller value."

"Labour, therefore, it appears evidently, is the only universal, as well as the only accurate measure of value, or the only standard by which we can compare the value of different commodities at all times and places."

It is this passage which has given rise to all the attempts to discover an invariable standard of value; and, indeed, to the idea that there can be such a thing at all.

But the utter confusion of ideas in the passage is evident. Smith, in accordance with all other writers, begins by defining the value of a thing to be any other thing which it will purchase. The value of labour itself, therefore, is what it will purchase. And then he says that equal quantities of labour are always of the same value—no matter whether they will purchase 10*l.* or 100*l.*

And it is from this confusion of thought that he maintains that if a commodity is always produced by the same quantity of labour it will be invariable in value. And hence the value of a commodity came to be defined to be the quantity of labour embodied in it, as it were. Which gave a great impulse to the misleading and contradictory term of intrinsic value, which has been the ruin of so much of English economics.

CONFUSION OF RICARDO ON VALUE.

Exactly the same confusion runs through the whole of Ricardo on value.

He begins by saying: "The value of a commodity is the quantity of any other commodity for which it will exchange."

As he goes on, however, he gradually comes to the notion that the value of anything is the quantity of labour expended in obtaining it, and he maintains that if anything could always be obtained with the same quantity of labour it would be an invariable standard of value.

He also says: "The labour of a million of men in manufactures will always produce the same value . . . That commodity is alone invariable which at all times requires the same sacrifice of toil and labour to produce it."

That is, Ricardo says that the value of manufactures is always the same, whether they sell for 100*l.*, or 20*l.*, or 5*l.*, or for nothing.

After beginning by defining and several times repeating that the value of a thing is some other thing for which it will exchange, he ends by saying: "I cannot agree with M. Say in estimating the value of a commodity by the abundance of other things for which it will exchange."

Ricardo, therefore, begins by defining the value of a thing to be something external to it, and he ends by describing it to mean the cost of production or quantity of labour bestowed in obtaining it.

The very first day that Bentham read his book, he wrote to Ricardo to tell him that it was all founded on the confusion between cost and value.

This doctrine that cost of production regulates value has overspread English economics, but it is evidently utterly erroneous. It all arises from Smith in the beginning of his work, and Ricardo arguing from a very small class of facts only, instead of first considering all cases of value before beginning to theorise. Smith, as has been shown, begins his work by asserting that wealth is the annual produce of "land and labour," and Ricardo considers no quantities except those which are produced by human

labour. Now, as will be shown more conveniently further on, the economic quantities which are the produce of human labour are the smallest class of any, and it is utterly unscientific to build up general theories upon one class of cases only, which are utterly erroneous and misleading when applied to other classes.

It has now been shown that the only true definition of the value of anything, is any other thing for which it can be exchanged. And as any one of the three orders of economic quantities can be exchanged for any one of the others, it will be seen that it is entirely erroneous to say that labour is necessary to value.

ON THE ERROR OF THE EXPRESSION INTRINSIC VALUE.

It is, then, to be clearly understood that the value of a thing is always sometimes external to itself.

The unfortunate idea of Locke, Smith, and Ricardo, that the value of a thing is the quantity of labour embodied in the thing itself, gave rise to the misleading expression intrinsic value, which is a contradiction in terms.

Smith, as has been shown, begins by defining the value of anything to be some other thing which it will purchase, and then he suddenly changes the idea of value to be the quantity of labour expended on obtaining the thing itself. This unfortunate phrase intrinsic value meets us at every turn in economics, and has been the cause of enormous confusion.

Thus it is often said that money has intrinsic value, but that a bank note or bill of exchange is the representative of value.

Money no doubt is the produce of labour, but Smith himself says that if money were not exchangeable, it would have no value. How then can the value of money be intrinsic? How can anything have intrinsic value unless it has the things it will exchange for inside itself? Money will exchange for anything—land, corn, houses, jewelry, and each of these is a value of money; but which of these is its intrinsic value.

It is perfectly admitted that a bank note payable on demand is of the value of money, and why is it so? simply because it is exchangeable for money. Hence it is clear that a bank note has value for exactly the same reason that money has and for no other; namely, that they are exchangeable for something else. When money can be exchanged, it has value; when it cannot be exchanged, it has no value; when a bank note can be exchanged, it has value; when it cannot be exchanged, it has no value.

The expression intrinsic value is so common that persons are apt to overlook its incongruity of ideas; it is, however, a plain contradiction in terms, and if we use words of similar import whose meaning has not been so corrupted, its absurdity will be apparent at once. Thus who ever spoke of intrinsic distance or an intrinsic ratio? The absurdity of these expressions is apparent at once; but they are in no way more absurd than intrinsic value. If we speak of the intrinsic value of money we may just as well speak of the intrinsic distance of St. Paul's or the intrinsic ratio of five.

To say that money has intrinsic value because it is material and the produce of labour, and that a bank note or bill of exchange is only the representative of value, is just as absurd as to say that a wooden yard measure is intrinsic distance, and the space between two points a yard apart is the representative of distance.

Hence a credit, whether in a mere abstract form, or as written down on paper in the form of a bank note or bill of exchange, is by the acknowledgment of all jurists, economists, and merchants an article of merchandise or exchangeable commodity, and produces exactly the same effect on prices as money itself.

A STANDARD OF VALUE IS IMPOSSIBLE, BUT THERE MAY BE A MEASURE OF VALUE.

The unfortunate idea that the value of a commodity is the quantity of labour embodied as it were in the commodity itself, originated by Locke, and adopted by Smith and Ricardo in one part of their works, not only led to the misleading expression, intrinsic value, which has been the source of endless confusion in economics, but also to the search for something which is impossible by the very nature of things, namely, an invariable standard of value.

It is as well to explain what those economists mean who want an invariable standard of value.

If we had a British yard and any foreign measures of length before us, we could at once perceive the difference between them, and if we were told the measurements of any foreign buildings, however remote in age or country,

we could, by a very simple calculation, reduce them to the standard of British measurement, and compare them with the size of our own buildings.

Those economists who search for an invariable standard of value want to fix upon single commodity by which they can compare the value of all other things in other ages and countries.

But such a standard is impossible by the very nature of things. Money is indeed termed the measure of value; and so it is in exchanges which are affected at the same time and place. If we are told that a quarter of corn is worth 40s. and that a sheep is worth 40s. at a certain time and place, we should know that they were then and there of equal value.

But such matters are not the result of simple perception by the senses. If a quantity of gold were placed beside a number of other things, no human sense could discover what their value would be. And the most violent changes in their several values might take place in the market without there being any visible signs of such a thing. Value is a mental affection, and values are not perceptible by ocular demonstration, but they must be declared by the communication of minds.

It is not possible to ascertain the different quantities of gold obtained in different ages and countries. If a quantity of gold coins minted in the time of Elizabeth and equal quantity minted in China, and an equal quantity minted in the reign of Victoria, were placed side by side, what human sense could discern the difference in value between them? And yet that is what those economists require who search for an invariable standard of value. They want something by which they can at once decide whether gold is of more value in A.D. 100, in 1400, in 1887, in England, or in China, without reference to anything else.

The only test of value is an exchange, and unless we can effect an exchange there can be no value. How can we exchange an ounce of gold in the year 180 for one in 1580, or in 1887? Value must therefore be a relation between temporary commodities.

If we compare the value of a commodity at one time with its value at another, it is only a comparison of the relation in which it stood at these different times to some other commodity. It is not a comparison of some intrinsic independent quality at one period with the same quality at another period, but a comparison of ratios.

This search after the impossible has arisen from the unfortunate idea of Smith that the value of a thing is the quantity of labour bestowed in obtaining it, which, as has been seen, was adopted by Ricardo. From this it was supposed that if any commodity could always be obtained with an invariable quantity of labour it would be an invariable standard of value. Ricardo admitted that there is no commodity which is always obtained by an invariable quantity of labour, and therefore, for that reason alone, he admitted that an invariable standard of value is unattainable.

An invariable standard of value is, however, unattainable not only for the reason given by Ricardo, but it is itself absolutely impossible by the very nature of things, because value is a ratio, and a single quantity cannot be the measure of a ratio. A measure of length or capacity is an absolute single quantity, but value is a ratio. We may measure a tree with a yard, or a hogshead with a gallon, because they are each of them single quantities; but value is a ratio, and it is impossible to say—

$$a : b : x$$

It is manifestly absurd to say that four is to five as eight.

But when we consider that value is originally a desire of the mind, there may be a measure of value, because any commodity may be fixed upon to measure the intensity of the desire persons have to obtain something else; but even this is only a measure for contemporary transactions, it cannot be a permanent measure extending through all ages and countries.

The measure of value is money and credit. That credit is a measure of value equally with money is evident, because a person measures his desire to obtain something as well by giving a promise to pay at a future time, as by giving money itself.

ON THE ORIGIN, SOURCE, OR CAUSE OF VALUE.

We have now to show what is the origin, source, or cause of value.

It has been shown that there are three distinct classes of quantities which have value, and we have to ascertain what that single cause is which gives value to them all indifferently.

The first thing to be done is to make a complete collection of instances of value.

Now, there are three class of quantities which have value.

1. Corporeal or material property.—Land, houses, money, jewelry, cattle, corn, minerals, &c.

2. Immaterial property.—Labour of all kinds, professional, artizan, agricultural, &c.

3. Incorporeal property.—Rights of action, debts, the funds, copyrights, shares in commercial companies, &c.

We have now to discover the cause of the value of all these different quantities, namely, that single general cause which, being present, value is present; which, when it increases, value increases; which, when it decreases, value decreases; and which, being absent, value is absent.

Now we observe that labour or services and incorporeal property have value, but they have no materiality; hence materiality is not necessary to value, it is only accidentally associated with it in some cases.

It is also to be observed that labour has value, but labour perishes in the very instant that it is performed; hence durability is not necessary to value; it is only accidentally associated with it in some cases.

It is also to be observed that the land upon which a great city is built, cattle, timber, trees, bank notes, bills of exchange, &c. have value, and there is no labour in them; hence it is seen that labour is not necessary to value, it is only associated with value in certain cases.

DEMAND IS THE SOLE ORIGIN OF VALUE.

As ancient writers unanimously held that exchangeability is the sole essence and principle of wealth, and as for anything to be exchangeable there must be a demand for it, they unanimously held that *xpeia*, or demand, is the sole origin of value.

All modern writers on economics were equally unanimous that demand is the sole origin of value up to a certain time.

Boisguillebert, a most distinguished writer, says:—“Consummation (consumption or demand) is the principle of all wealth.” “All the revenues, all the riches in the world, consist in consummation (demand); all the most exquisite fruits of the earth, and the most precious products would be nothing but rubbish if they were not consummés (demanded).”

The Italian Economists are very clear and consistent in showing that human wants and desires are the cause of all value. Genovesi clearly points out that the words *prezzo*, *pregio*, *stima*, *valuta*, *valore*, are words of relation, and not absolute, and that they are not applied to intrinsic qualities. That, though money is the apparent or proximate measure, the ultimate measure to which not only things but their price is referred is man itself. Nothing has value where there are no men.

“Men, however, do not give value to things or services unless they want them. Hence our wants are the first source of the value of all things; and price is the power to satisfy our wants. . . . Nothing has value except in relation to these wants.” He shows that prices are always determined by supply and demand, and he says, “Value is the child of demand.”

So Beccaria says: “Value is a substance which measures the estimation in which men hold things.”

The first economists made all value proceed from demand; and they showed that things which remain without consummation (demand) are without value.

Condillac is also very clear on this point. He shows that all value arises from the mind of man. “This esteem is called value.” “Since the value of all things is founded on the want of them, or the demand, it is natural that a want more strongly felt gives things greater value; and a want less felt gives them less value.” “As soon as we want a thing it has value, and only for that reason.”

All this is so perfectly obvious, that it seems strange that it should ever have been disputed.

ERROR OF THE DOCTRINE THAT LABOUR IS THE CAUSE OF VALUE.

The doctrine, maintained by all ancient writers and by continental economists, that demand is the sole origin of value seems so obvious and indisputable that it is a matter of surprise that it should ever have been doubted. Nevertheless, the doctrine that labour is the cause of value has become very widespread in England, and has had the most disastrous effect on English economics.

Locke, as far as I am aware, seems to have been the originator of this doctrine. In a passage in his Essay on

Civil Government, which is too long to quote here (Macleod's Banking, Vol. I., p. 123), he takes certain commodities, and maintains that their value is just the quantity of labour employed in producing them.

To this the answer is simply that if there was no demand for them they would have no value at all.

Smith begins by describing wealth as the produce of “land and labour,” but he afterwards admits that if it is not exchangeable it has no value; which at once acknowledges that demand is in reality the cause of value.

The fundamental defect of Ricardo's work is that it is not a treatise on value in general, but only on that of material products, and only even of a small portion of these, namely, those which are the produce of human labour. Ricardo expressly limits his inquiry to the material products which are produced by human labour, and then lays down the dogma that labour is the foundation of all value.

The following examples, however, will show that the doctrine that labour is the cause of all value is entirely untenable—

1. An acre of ground near the Bank of England usually sells for about a million sterling. The land has value, it is a saleable commodity, and therefore wealth. But how is its value due to labour?

The land at Charing Cross has very considerably less value than near the Bank of England, and the land at Kensington still less value. How are these differences in value due to labour when there is no labour at all in any of these cases?

As the tide of fashion, population, and wealth sets towards a locality, the ground in it rises rapidly in value; when it is deserted by fashion and wealth, the ground diminishes in value; how is this increase and decrease of value due to labour, when there is no labour at all in either case?

Take the case of cattle, flocks, herds of all sorts, how is their value due to labour?

In the midland counties of England many an oak tree would sell as it stands on the ground for 100*l.*, before any one has touched it. It has been stated that in 1810 an oak tree was cut down at Gelas in Monmouthshire, the wood of which sold for 670*l.* and the bark for 240*l.* How was the value of such tree due to human labour?

A whale was cast ashore on the Firth of Forth; it sold as it lay on the beach for 70*l.* How was its value due to labour?

Some years ago it used to be the fashion for European ladies to imitate their swarthy sisters of Central Africa, and pile large masses of hair, termed chignons, on their heads. While this rage lasted a young girl's hair frequently sold for 5*l.*, 10*l.*, 20*l.*, and even much higher sums. Was the value of the girl's hair due to human labour?

When a fair is held in a country town persons pay a good rent for leave to erect booths and tents on the common. At other times they would not pay anything. How is the value of the space of ground due to labour?

Hence there are multitudes even of material things which have value, upon which no labour was ever bestowed, which shows that labour is not the cause of the value even of material things.

But labour itself has value. If, then, labour is the cause of all value, what is the cause of the value of labour?

A Bank of England note, or a great merchant's acceptance, for 1000*l.* has value. Is that value due to human labour?

When a banker discounts a bill for a customer, he gives him a credit in his books for it. That is, he buys one right of action by creating another right of action; and by so doing he gives value for it. Is the value of the banking credit due to labour?

As the strict logical conclusion of his doctrine that labour is the cause of all value, Ricardo maintains that air, heat, and water add nothing to the value of the crops. If this doctrine be true, it would follow that if we were to plant a vineyard in Shetland, the grapes, if they ever appeared, and the wine made from them, would have exactly the same value as the grapes and the wine produced in the vineyards of France.

Some persons regard Ricardo as a great authority in economics, but when his doctrines are plainly examined in the light of day they are seen to be entirely untenable.

Why have cattle, flocks, herds, timber, trees value? Because there is a demand for them. If all persons were to become vegetarians, the value of cattle, herds, flocks, &c. would at once die off. What gives value to the vineyards of France, California, and Australia? The demand for wine. If the whole world were to become teetotallers, all value would at once die off from the vineyards of France, California, and Australia.

What is it that gives value to labour of all sorts? Simply the demand for it. If there is no demand for labour, it has no value.

Why has a bank note or bill of exchange value? Because the debtor is bound to pay, *i.e.*, demand it, at the proper time.

Convertible paper has the value of gold, because at the proper time it can be compulsorily exchanged for gold. But even inconvertible paper may have value. During the bank restriction the notes of the Bank of England for a considerable period circulated at par with gold. Afterwards, in consequence of the excessive issues of the Bank, they fell to a considerable discount. But still they had a certain value. Was that value due to labour?

In 1874 the notes of the Bank of France were inconvertible, but they circulated at par with gold. Was that value due to labour?

In Russia the inconvertible paper rouble has long been at a heavy discount as compared to silver. But still it has a certain value. Is that value due to labour?

It is perfectly admitted by all economists that an increased quantity of credit diminishes the value of the whole circulating medium. Now, as one part of the circulating medium consists of metallic coin, and the far larger part consists of various forms of credit, how can the value of the whole be due to labour?

The fact is, that only a very small part of material commodities have any labour associated with them at all. And even the value of those which are produced by labour is not due to the labour, but to the demand for them.

Those writers to whom the prevalence of the doctrine that labour is the cause of all value is chiefly due, Smith, Ricardo, and McCulloch, have all contradicted themselves, and admitted that demand is the real cause of value.

McCulloch says: "An object which may be appropriated or adapted to our use without any voluntary labour on our part may be of the highest utility, but as it is the free gift of nature it is quite impossible that it can have the smallest value. . . . In its natural state, matter is very rarely possessed of any immediate or direct utility, and is always destitute of value. It is only through the labour expended on its appropriation, and on fitting and preparing it for being used, that matter acquires exchangeable value, and becomes wealth."

The few examples given above, to which multitudes of others might be added if necessary, show that this doctrine is entirely erroneous.

And the same McCulloch says elsewhere:—"Demand may, therefore, be considered as the ultimate source and origin of both exchangeable and real value, for the desire of individuals to possess themselves of articles, or rather the demand for them originating in that desire, is the sole cause of their being produced or appropriated."

Is it any cause for wonder that economics is in such a deplorable state, and fallen into such general disrepute as a science, when the professed writers on it are in such flagrant contradiction with themselves on its fundamental principles?

Whately, says:—"In this, as in so many other points in political economy, men are prone to confound cause and effect. It is not that pearls fetch a high price because men have dived for them, but, on the contrary, men dive for them because they fetch a high price."

Value, then, like colour, sound, and odour, only exists in the human mind.

It is not labour which is the cause of value, but, on the contrary, value which is the inducement to labour.

Long ago the tribunes of the Commons, said:—"Eo impendi laborem ac periculum . . . magna præmia proponantur."

So Hume, says:—"Our passions [desires or demand] are the only causes of labour."

Persons do not bestow a great deal of labour on producing a thing, and then discover that they want it. On the contrary, they either want it themselves or hope that other persons may want it, and then they labour to produce it.

It is not, therefore, the labour of the producer which constitutes a thing wealth, but the demand of the consumer.

ON THE RICARDO—MILL THEORY OF VALUE.

Ricardo was the first writer in this country who conceived the idea of reducing economic phenomena to general principles, but unfortunately his system is utterly contrary to the fundamental principles of natural philosophy.

It has been shown that though Ricardo's work is a treatise on value, it is not a treatise on the general theory of value in its widest extent, but only on a very small portion of it.

He excludes from consideration all but those things which are the produce of human labour, and then he lays down the dogma that labour is the foundation of all value.

It has been shown that there are vast quantities of material things which have value, and which are in no way the produce of labour; and therefore, that labour cannot be the cause of all value. And even in those things which are produced by labour, it is not labour which is the cause of their value, but the demand for them.

Ricardo divides commodities into three classes:—

1. Those of which the supply is absolutely limited and cannot be increased by human labour. Of these he acknowledges that the value is exclusively governed by the law of supply and demand.
2. Those commodities which can be increased at will by human labour without assignable limit.

Ricardo says that these commodities are divided into two classes:—

(a.) Those which can be increased to any extent at an equal cost of production. Of these he says: "It is cost of production which must ultimately regulate the price of commodities, and not as has often been said, the proportion between supply and demand."

(b.) These commodities which can be increased in quantity at will, but not by equal cost of production like corn and minerals. An increased quantity of corn (or minerals) can always be procured, but the increased quantity is always obtained at an increased cost. In this class of commodities, Ricardo says the cost of obtaining the last quantity produced, regulates the price of the whole quantity.

It is obvious that there are many other classes of commodities besides those mentioned by Ricardo.

Mill accordingly speaks of many other cases, and he divides them into "exceptional cases," "peculiar cases," and "anomalous cases."

Now it is obvious that this method of treating economics is contrary to the fundamental principles of natural philosophy. Mill himself says that economics is to be treated in the same way as the physical sciences. Ricardo and Mill break up economic phenomena into a number of distinct classes of cases, and maintain that there is a distinct fundamental law of value for each of them. But this is contrary to the laws of natural philosophy; for in each one of the physical sciences it is acknowledged that there can be only general law governing all the phenomena of the science.

The doctrine that cost of production regulates value has acquired great hold in English economics, but the slightest reflection will show that it is entirely erroneous. It would be too long to give a full refutation of it in this place. That is done in Macleod's *Elements of Economics*, Chapters VII. and IX.

ON THE GENERAL LAW OF VALUE OR THE GENERAL EQUATION OF ECONOMICS.

Having given the definition of value, and found that its origin resides exclusively in the human mind, the last thing is to ascertain the general law of value or the general equation of economics; that is, to discover a single general law which governs the changes in the exchangeable relation of all quantities, whatever their nature may be, at all times and places.

The acknowledged principles of Natural Philosophy show that there can be but one general law of value. The three orders of economic quantities can be exchanged in six different ways, and the general law of value must govern all these six species of exchange indifferently. The law which governs the exchangeable relations of material commodities must equally govern the exchangeable relations of debts.

Let A and B be any two quantities whatever, material, immaterial, or incorporeal, it is quite clear that their exchangeable relations are contained in the following limits:—

$$\begin{aligned} \infty A &= 0 B \\ &\&c. = \&c. \\ 2 A &= \frac{1}{2} B \\ A &= B \\ \frac{1}{2} A &= 2 B \\ &\&c. = \&c. \\ 0 A &= \infty B. \end{aligned}$$

The meaning of which is, let the exchangeable relation between A and B gradually and continuously change from where the greatest possible quantity of A will exchange for the least possible quantity of B, to where the least possible quantity of A will exchange for the greatest possible quantity of B.

Then the law of continuity says that a quantity cannot pass from one amount to another by any change of conditions without passing through all intermediate degrees of magnitude according to the intermediate conditions.

Hence we may affirm by virtue of the law of continuity—

1. That if it can be indubitably proved that any particular law holds good at any one point in the range of

prices, that same law must necessarily hold good at all points throughout the whole range of prices.

2. That as the symbols A and B are perfectly general, if any law whatever can be proved to hold good in the variation of the exchangeable relation of any two quantities whatever, that law must necessarily hold good in the exchangeable relations of all quantities whatever.

Thus, by the law of continuity, we are enabled to affirm that—

If any law whatever can be proved to be true at any one point in the range of prices between any two quantities whatever, that same law must necessarily be true at all points in the range of prices, and between all quantities whatever.

And, as a necessary corollary from the preceding, it may be affirmed that—

If any law whatever can be proved not to be true with the regard to the relation of any two quantities whatever, that law cannot be a general law of economics.

Furthermore, as it is a universally acknowledged principle of Natural Philosophy that that law only is the true one which explains all the phenomena, it may be laid down as an unquestionable truth in economics that—

If two or more forms of expression will explain or account for any phenomena regarding price, or the change of price, that form of expression only is to be adopted as the true one which explains all the phenomena in the science, and not that individual case or class of cases only.

Now, as the law of cost of production will only apparently even explain one class of cases only, whereas it is evidently incapable of explaining whole multitudes of other cases, it is seen that it is not the true law even in that single class of cases, but that single class of cases must in reality be governed by a general law which explains all cases.

LORD LAUDERDALE'S LAW OF VALUE.

The true way of stating the fundamental problem of economics is this: Let any number of economic quantities have a certain relation to each other at any given time, to find the law which will produce a change in their exchangeable relations. For the law which produces a change in their relations must necessarily be the law by which their relations at any given instant are determined.

Lord Lauderdale says, that of two quantities which may each vary, if we suppose the variation to take place in one of them, the other remaining constant, its value would be influenced by four causes:—

It would increase in value—

1. From a diminution in quantity.
2. From an increase of demand.

It would diminish in value—

1. From an increase of quantity.
2. From a diminution of demand.

As the variation of the other quantity will be influenced by the same four causes, it is quite clear that the variation of both quantities will be influenced by eight independent causes, and if these be connected in the form of an algebraical equation, that will manifestly be the true general law of value, or the true general equation of economics, which determines value in all places and times.

All economists admit that the law of supply and demand, of which the above is the full expression, is true when the prices of things are very low; they also admit that it is true when the prices of things are very high; it is admitted to be true at the extremes of prices, and, therefore, it is manifest that by the law of continuity it must be also true

at all intermediate points in the range of prices; that is, it is universally true.

The general equation of economics is, therefore, a compound ratio of a very complicated nature, and to apply it in particular cases requires a profound knowledge of the circumstances of that case.

This equation is obtained in the same way that all equations on the other physical sciences are obtained. We have determined the independent variables, and they are connected in a general law or formula. This insures certainty to the science, but it is in the last point that the real difficulty arises, namely, in giving precision or numerical amounts to the coefficients. It is quite impossible to say what numerical variations in supply or demand will produce definite variations in value. This has been attempted in some cases, but with no success, as it is impossible to obtain exact numerical data, and, in fact, though the same general law is true, the same absolute variation in supply and demand of various quantities will produce great differences in the variations of their numerical values.

It is this difficulty, or rather impossibility, of giving precise numerical values to the coefficients, that makes many persons suppose that it is impossible to make economics an exact science. It is sometimes supposed that for a science to be an exact one, it is necessary that its laws should be capable of precise quantitative statement. It has, however, been well pointed out, that there is a fundamental distinction between certainty and precision in science. To constitute an exact science, it is only necessary that the reasoning be exact or certain, not that its laws be stated with numerical precision. Different sciences may be equal in certainty, but very unequal in precision. This observation applies very forcibly to economics. Some persons are apt to despise it because its results cannot be brought out with the same numerical precision as those of mathematics. This, however, is an error. In economics the causes of phenomena can be ascertained with absolute certainty, and if we want to produce a given effect, the method of producing it can be pointed out with absolute certainty. This is all that is necessary to constitute an exact science, because the method of producing the result being pointed out with certainty, it has only to be put in force until the required result is produced.

In considering the general equation of economics given above, we see the application of Bacon's aphorism: "That which in theory is the cause, in practice is the rule." No other quantities but demand and supply appear on the face of the equation. It therefore follows that no other causes influence value or changes of value than intensity of demand and limitation of supply.

It is seen that neither labour nor cost of production have any direct influence on value, and if they do so indirectly it can only be by and through the means of affecting the demand or the supply; and that no charge of labour or cost of production can have any influence or value unless they produce a change in the relation of supply and demand.

Thus the labour or cost of production theory of value is entirely disproved, and shown not to be applicable to the question before the Commission.

There only remains, then, the law of supply and demand, as expressed in full above, which is the universal law of value. And, as the question of bi-metallism is only a particular example of the universal law, it must necessarily govern the momentous question before the Commission.

It is a problem of the profoundest complexity to discern how the universal law of value is applicable to the particular case of bi-metallism.

SECTION III.

THE THEORY OF CREDIT.

The theory of the value of land will throw a complete light on the theory of credit.

If we purchase an estate in land for 100,000*l.* say, where is the value for the money? Does it consist in things which are already in existence? Everyone knows that it does not.

When we purchase an estate in land we purchase the right or property not only in the existing products of the land, but also the right to receive these products for ever; that is, to a series of products which will only come into existence at definite intervals of time for ever. That is, we purchase not only the existing products of the land, but also its capacity to produce future products to the end of time.

But though the annual products of the land will only come into existence at future intervals, the right or property to receive them when they do come into existence

is present, and may be bought and sold like any material chattel. That is, each of these future products has a present value, and the purchase money of the land is the sum of the present values of this series of products for ever.

When a purchaser has bought land it may be said to owe him a series of annual products for ever. Hence the right to receive these future products is the credit of the land, because the purchaser only bought it on the faith, hope, or trust that he would receive them.

A trader exercising any profitable business is an economic quantity analogous to the land. He has perhaps accumulated money as the fruits of his past industry, but over and above his accumulated money, he possesses the same capacity, ability, and industry to earn profits in the future, as he has already done in the past, and, of course, he has the right or property in the products of his future industry.

And he may trade in two ways. He may trade with the money he has already acquired, or he may purchase goods by giving in exchange for them the right or property to demand payment for them at a future time, out of the profits which are to be earned in future. Personal character used in this way as a purchasing power is termed credit, and, as has been shown, all economists are now agreed that anything which has purchasing power is wealth, it necessarily follows that money and credit are equally wealth.

Mercantile character, then, is purchasing power, and if a trader can purchase goods, labour, or money with his personal credit, his credit has a value which is measured in money.

Hence mercantile character is wealth or valuable property, and it may be used as capital as well as any material chattels.

A merchant's credit may be damaged and injured by false reports, just as his material goods may be damaged and injured by material violence. To damage a merchant's credit is to injure and destroy his purchasing power, and is just as great an injury to him as to rob him of his money. And he has an action against any one who injures his mercantile character or credit equally as he has against any one who injures his material chattels.

So distinctly is personal character recognised as property in Roman law that it is classed under *jura in re*, and an attack on it is an *injuria*, or the infringement of a legal right.

Hence it must be carefully observed that mercantile character or credit is national wealth.

ON THE CREATION OF OBLIGATIONS.

But as value does not enter into economics unless a person manifests his value or demand for something by giving something in exchange for it, so mercantile character or credit does not enter into economics until the merchant actually exercises his credit by making a purchase with it.

And when a merchant buys goods with his credit, or "on credit," as it is often termed, it is an absolute sale, just as much as if the purchase had been effected with money. He acquires the absolute property in the goods as fully and effectually as if he had paid for them in money.

But at the very instant that the property in the goods is ceded to the merchant a contract or obligation is created between the two parties, the buyer and seller of the goods, which consists of two parts:—

1. The right to demand payment in the person of the seller or creditor.
2. The duty to pay in the person of the buyer or debtor.

These two quantities constitute the contract or obligation or the bond of law between the two parties.

In this contract or obligation the creditor's right of action to demand the future payment in law, commerce, and economics is termed the credit or the active debt.

The debtor's duty to pay is termed the passive debt.

The right of action, credit, or debt is the price or payment of the goods. When a merchant takes a trader's bill at three months in exchange for goods, it is payment for the goods just as much as if it were money. The transaction is a sale or an exchange. The bill is payment for the goods; what the trader has to do is to pay his bill when it becomes due, which is another exchange.

This right of action written down on paper is a saleable material commodity, like any material chattel, and it may be bought and sold, and circulate in commerce, and effect exchanges exactly like a sum of money. It is termed a credit because anyone who buys it knows that he only buys a right of action against a person to demand a sum of money, and not a title to any specific sum of money; and he only buys it in the belief and confidence that the debtor will be able to pay it at the proper time.

It is also carefully to be observed that the debtor's duty to pay a sum at a future time is no subtraction from his present property. For the debt is simply the personal duty to pay, and there is no duty to pay until the day of payment comes.

It is now apparent why economics can only be made a definite science by adopting the fundamental concept of exchanges. The whole phenomena of credit, which are a hopeless puzzle and perplexity while it is treated as the "Production, Distribution, and Consumption of Wealth," become perfectly clear and simple when it is understood to be the science of commerce or exchanges.

ON THE EXTINCTION OF OBLIGATIONS.

It has now been shown that credit is the name of a species of incorporeal property of the same nature, but inferior in degree to money, and that it fulfils exactly the same functions as money as a medium of exchange or

circulation. It is a property cumulative to money; that is over and above money. But credit has its limits, and we have now to investigate the proper limits of credit, and to explain the various methods by which it is extinguished.

The true limit of credit may be seen by the definition of the term; because credit is a promise to pay money at a future time.

The institution of banks and bankers who create currency by means of their credit, either in the form of notes or deposits, gives a great extension to the limits of credit; but the principle of the limit remains the same. Credit always has to be redeemed, and if this can be done the credit has been sound; hence credit is never excessive, whatever may be its absolute amount, so long as it always returns into itself.

Credit being the right to demand a future payment, and the debt being the duty to pay, of course the payment fulfils, discharges, and extinguishes the right as well as the duty; and thus the obligation is absolutely annihilated and extinguished.

Credit being always expressed to be payable in money, it is often supposed that bills and notes are only extinguished by payment in actual money. This, however, is an error; there are several other modes of satisfying a debt besides actual money; and in this country the amount of bills which are paid in money is absolutely infinitesimal compared to those which are paid in other ways.

There are four different methods by which obligations may be extinguished; these are:—

1. By release or acceptilation.
2. By payment in money.
3. By renewal or transfer, or novation.
4. By set-off or compensation.

ON RELEASE OR ACCEPTILATION.

The first method by which an obligation can be discharged is by release, termed in Roman Law, *Acceptilation*.

As the contract or obligation is created by the mutual consent of two persons, it can be cancelled or annihilated by the same consent which created it.

Euler says, that if a man has nothing, and even owes 50 crowns, he has 50 crowns less than nothing; that is, he has nothing, and is under the duty to pay 50 crowns.

Euler also says, that if any one made the debtor a present of 50 crowns to pay his debt with, his property would then be only at the point 0, but he would be 50 crowns richer than before.

Euler is right so far as he goes, but he has only stated one half of the case, because the same result may be arrived at in another way. As any one may give the debtor 50 crowns to pay his debt, we may suppose that the creditor does so. The debtor may then pay the debt by giving the creditor back his 50 crowns, and the debt will be discharged. The debtor, though now possessing 0, is 50 crowns richer than he was before.

The same result may be obtained in a shorter way. Suppose that the creditor instead of going through the double operation of first giving and then receiving back the 50 crowns, simply releases the debtor from his debt. Then the debtors' property would be 0, and he would be 50 crowns richer than he was before.

This example shows that the release of a debt is in all cases equivalent to a payment in money, a principle of the most momentous importance and the widest application in commerce.

So the digest says "*Qui obligatione liberatur videtur cepisse quid.*" "He who is released from an obligation has gained."

So all jurists point out that the release from a debt is under all circumstances equivalent to a payment in money.

The application of this in commerce may be shown.

Suppose that I owe a banker 100*l.*, in how many ways may I pay him?

1. I may pay him 100*l.* in actual money.
2. If I have 100*l.* in his notes, or have an account with him, I may tender him his own notes, or I may give him a cheque on my account. In these two cases I release him from his debt to me, and that is in all respects the same thing as paying him 100*l.* in money.
3. Or I may pay him 50*l.* in money, and 50*l.* in his own notes, and the combined effect of these two is to discharge and extinguish my debt of 100*l.*

Thus I may pay a debt to a banker entirely in money, entirely in his own notes or by cheque, or partly in money and partly in his own notes or by cheque, and the effect of these several modes of payment is absolutely identical.

ON PAYMENT IN MONEY.

All jurists have pointed out that a "loan" of money is in reality a sale or an exchange. The property in the money is ceded to the borrower, and in exchange for it the right

on property is created in the person of the lender to demand back an equal sum at a future time.

Thus, if a person "borrows" 100*l.* at 5 per cent., he in reality buys the 100*l.*, and gives in exchange for it a right of action to demand 105*l.* at the end of the year. This right of action is the credit.

So when a person buys goods on credit, he buys them by creating a right of action against himself to demand a sum at a future time.

In either case, as has been shown, this right of action is an independent article of property, which can be bought and sold, or exchanged like any material chattel, and is termed *pecunia, res, bonum, merx, χρήμα, αγαθόν, πράγμα*, and is "goods," "goods and chattels," "incorporeal chattel."

When the time of payment comes, the creditor brings his right of action to the debtor, and the debtor buys it, just as he would any material chattel. Thus, when a debtor pays a debt, he simply buys up the right of action against himself.

Thus, an obligation is created by one exchange, and is cancelled and annihilated by another.

ON RENEWAL AND TRANSFER: OR NOVATION.

An obligation may also be extinguished by substituting a new one for it. This is termed *Novatio* in Roman law.

Novation may take place in two ways:—

1. When the debtor himself gives the creditor a new obligation, which he accepts in lieu and discharge of the previous one, which is thereby extinguished. The new obligation is the price or the payment of the previous one. This is usually called *Renewal*.

Thus, when a banker agrees to renew the promissory note of his customer, the new note is the payment of, and extinguishes the former one.

If a creditor has a debt owing to him payable on demand, and he agrees to take a note from his debtor payable in three months, the note is payment of, and extinguishes the debt payable on demand; and no new debt arises until the time comes for the payment of the note.

2. A debtor may transfer to his creditor a debt due to him from someone else. If the creditor agrees to receive this new debt in payment of his debt, he thereby discharges his own debtor, and accepts the debtor's debtor as his new debtor.

Thus, where a debtor pays his creditor in bank notes, if the creditor accepts these notes in payment of his debt, he discharges his own debtor, and accepts the banker as his new debtor.

So also when a debtor gives his creditor a bill of exchange on another person.

If the creditor and debtor are both customers of the same bank, the debtor may give his creditor a cheque on his banker. The creditor pays this cheque into his own account, and the banker transfers the credit from one account to the other.

The debtor has thus paid his own debt by transferring to him a debt due to him from his banker.

When the new debtor consents to the transfer of the debt he is said to be *delegatus*; and the transfer of the credit is termed *delegatio*.

This *novatio* or *delegatio* is equivalent to a payment in money.

The Digest says:—"Verbum exactæ pecuniæ non solum ad solutionem referendum est sed etiam ad delegationem."

So the Basilica:—"τὸ ῥῆμα τῶν ἀπατηθέντων χρημάτων οὐ μόνον εἰς καταβολὴν ἀναφέρεισθαι δεῖ, ἀλλὰ καὶ ἐς ἐκταξιν."

The word payment includes not only payment in money, but also the transfer of a credit.

So the Digest:—"Solvit et qui reum delegat." "He pays who transfers another debtor."

It is evident that the larger a bank is there will be more numerous cases of creditors and debtors being customers of the same bank, and of debts being settled by transfers of credit instead of by money.

As will be shown hereafter, bankers have devised an ingenious method by which credits may be transferred from bank to bank exactly in the same manner as they are transferred from one account to another in the same bank. Thus all the banks which join in this institution form for that purpose one huge bank. Thus the more extensive and the better organised the banking system becomes the smaller is the quantity of coin required to carry on commerce.

ON SET OFF OR COMPENSATION.

The last and a most important method of extinguishing obligations is by set off or compensation.

If two persons are mutually indebted in debts payable at the same time, each may claim that the debt he has against the other shall be taken in payment of the debt he owes.

The debts are weighed and set off against each other. This is termed compensation.

The following are examples of set off or compensation:—

1. Suppose two bankers issue notes, and each has got possession of an equal amount of the other's notes; then each banker may compel the other to receive his own notes in payment of the debt due to him.

2. Suppose that a banker holds a merchant's acceptance, and the merchant holds an equal amount of the banker's notes; then each may compel the other to receive his own obligation in payment of the debt to him.

3. Suppose that a banker holds the acceptance of his own customer, then, when the payment becomes due, he simply writes off an equal amount of the credit due to the customer; and thus the mutual debts are extinguished.

4. Suppose two merchants have issued their acceptances payable on the same day, and the acceptance of each merchant comes into the hands of the other; on the day of payment the two merchants exchange acceptances, and the mutual debts are extinguished.

In former times this principle of compensation was adopted to an immense extent on the Continent. Before the bankers discounted bills, there used to be great fairs at the various mercantile centres, Lyons, Antwerp, Brussels, and many others, every three months. Merchants, instead of making their bills payable at their own houses, where they must have kept large amounts of specie in order to meet them, made them only payable at the great fairs. In the meantime their bills circulated throughout the country, and had the same effects as money, and got covered with indorsements. On a certain day of the fair the merchants met and exchanged their acceptances. By this means an enormous commerce was carried on without the use of specie. In fact, commerce might be carried on to any extent without specie if only the respective acceptances of the merchants balanced among themselves.

These various methods of extinguishing obligations without the use of money show how utterly impossible it is to ascertain the relation of the quantity of money to prices, and are sufficient to show that that method is incapable of giving the solution of the problem before the Commission.

ON THE QUANTITY OF CREDIT COMPARED TO THE QUANTITY OF MONEY.

Credit, then, being seen to be a mass of exchangeable property, it is of considerable property interest, especially in the present inquiry, to discover the ratio which money and credit has been to each other in modern commerce.

A good deal of light may be thrown upon this by a return which Mr. Slater made respecting the transactions of his house in 1856.

He showed the proportion in which each million of payments and receipts were made in money and various forms of credit:—

Receipts.		
In bankers' drafts and mercantile bills payable after date	£ 533,596	
Cheques payable on demand	357,715	
Country bankers' notes	9,627	£ 900,938
Bank of England notes	68,554	
Gold	28,089	1,486
Silver and copper	1,486	
Post office orders	933	99,062
		£1,000,000

Payments.		
By bills of exchange	£ 302,674	
Cheques on London bankers	663,672	£ 966,346
Bank of England notes	22,743	
Gold	9,427	
Silver and copper	1,484	33,654
		£1,000,000

This may fairly be taken to represent commerce in general, and it is seen that specie did not form two per cent. of their payments and receipts.

The quantity of specie in the country may be roughly estimated at about 120,000,000*l.*, and, consequently, as there is about fifty times as much credit as money used in commerce, it would appear that there is about 6,000,000,000*l.* of credit in circulation.

This, of course, is only a rough approximate estimate, but it shows the colossal magnitude of credit, and its

supreme importance in modern commerce. This credit produces exactly the same effects, and affects prices exactly as so much gold.

TWO BRANCHES OF THE SYSTEM OF CREDIT.

The preceding observations are sufficient to give a general outline of the gigantic system of credit which has grown up in modern times, and in such a commercial country as this has almost superseded the use of money in commerce. Modern commerce is almost exclusively carried on by the creation, circulation, and extinction of debts or credits, and not by money, and the superlative importance of this in this inquiry is apparent, because these circulating credits or debts have exactly the same effects as prices and production as an equal amount of metallic coin. And the actual influence of metallic coin itself as prices and production can only be estimated by comparing the actual amount of coin with the quantity of credit which is used in conjunction with it.

The system of credit is divided into two great branches, commercial and banking. In the first, merchants buy commodities by means of credits or debts payable at a certain time after date. These commercial debts may circulate in commerce and effect exchanges exactly like

money until they are paid off and extinguished, and commercial debts are always intended to be extinguished when they become due.

The second source of creating credit is banking. Bankers buy money and these commercial debts by creating debts of their own, payable on demand. And there is this marked distinction between commercial debts and banking debts, that while the former are always intended to be extinguished at maturity, the latter are not so. Banking credits are created payable on demand, and must be paid if demanded. But they are not intended to be paid and extinguished. On the contrary, they are created with the hope and expectation that they will not be demanded, but continue in existence and do duty as money. There is no necessity that banking credits should ever be extinguished. They may be transferred from one account to another in the same bank, and from one bank to another to the end of time. It is quite possible that much of the banking credit which exists at the present time may have been originally created by the very first banks founded in this country, and there is no necessity that it should ever be extinguished as long as the banking system continues. Money is a very expensive machine to purchase and keep up, but banking credits cost nothing to create, and they may endure for ever.

SECTION IV.

ON BANKING.

The second great source of the creation of credit is banking.

The common notions of the nature of banking may be stated as follows:—

1. That the word bank comes from the Italian *banco* or *bench*; because as is alleged, the Italian money dealers kept a *banco* or *bench* on which their money was piled.

2. That the business of a banker consists in acting as an intermediate agent between persons who want to lend and those who want to borrow.

3. That the profits of a banker consist in the difference between the interest he pays for the money he borrows, and the interest he charges for the money he lends.

Then Gilbart says:—"A banker is a dealer in capital, or more properly a dealer in money. He is an intermediate party between the borrower and the lender. He borrows of one party and lends to another, and the difference between the terms at which he borrows and those at which he lends, forms the source of his profit."

So in the report of the House of Commons on the commercial panic of 1858, it is said:—"The use of money, and that only, they regard as the province of a bank, whether of a private person, or incorporation, or the banking department of the Bank of England."

These descriptions of banking, coming from apparently such high authority might be supposed to be accurate, nevertheless, they are entirely erroneous.

ON THE MEANING OF BANK.

The Italian money changers as such, were never called *banchieri* in the middle ages, nor was the office of a mere money changer ever called a *banco*.

Mere money dealers were called *cambiatores*, *cambitores*, *campsores*, *speciarii*, *nummularii*, *trapezitæ*, *danistæ*, *collybistæ*, and *mutuatores*, but never *banchieri*; and their places of business were called *casane*, but not *banchi*.

At the present day no person would call a mere money changer, or a person who merely lent out money, a banker.

Formerly there were many persons who acted as intermediaries between persons who wanted to lend and those who wanted to borrow; they were called money scriveners.

At the present day many firms of solicitors act as intermediaries between, persons who want to lend and those who want to borrow. But no one ever called such a firm bankers.

It is evident, therefore, that the nature of the business of a banker is essentially different from that of a money scrivener or a solicitor.

The word bank arose in this way. In the year 1171, the city of Venice was at war with the empires of the east and west. Its finances were in great disorder, and the great council levied a forced loan of one per cent. on the property of all the citizens. Commissioners were appointed to manage the loan, who were called the *camera degli imprestiti*. Such a loan has several names in Italian, such as *compera*, *mutuo*, but the most common is *monte*, a joint stock fund. This first loan was called the *monte vecchio*, the old loan; subsequently two other loans were contracted and called *monte nuovo* and *monte nuovissimo*. In ex-

change for the money the citizens received stock certificates, or credits, bearing interest which they might transfer to any one else.

At this time the Germans were masters of a great part of Italy, and the German word *bank* came to be used as synonymous with *monte*, and was Italianised into *banco*, and the loans or public debts were called indifferently *monti* or *banchi*.

Thus, an English writer, Benbrigge, writing in 1646, speaks of the "three banks" at Venice, meaning the three public loans or *monti*.

Ben Jonson in his *Volpone*, the scene of which is laid in Venice, says:—

"I make no profit in the public bank," meaning, I do not dabble in the Venetian funds.

So the Spanish economist, Olozaga, speaking of these loans says "*el monte Vecchio (banco viejo) . . . el monte-nuvo (banco nuevo)*."

That the word *banco*, in Italian, means a public debt, might be proved by numberless quotations.

Thus, in Florian's dictionary published in 1659, it says: "*Monte*, a standing bank or mount of money, as they have in divers cities of Italy."

So a recent writer, Cibrario says:—"Circa alla teoria del credito, che dissì invenzione di comuni Italiani, è noto che il primo *banco* o debito pubblico fu eretto in Venezia, nel 1171 . . . un monte o debito pubblico fu stabilito in Firenze nel 1336."

Numberless quotations might be made from the Italian economists who always use *monte* and *banco* as synonymous.

The bank of Venice was, in reality, the origin of the funding system, or the system of public debts, it did not for many centuries do what is termed banking business.

This was the meaning of bank when it was first introduced into English.

Thus Bacon, says:—"Let it be no bank or common stock, but every man be master of his own money."

So Gerard Malynes, in 1662, speaks of *mons pietatis* or banks of charity, and says, that in Italy there "*are montes pietatis*, that is, mounts or banks of charity."

Benbrigge in his *Usura Accommodata*, published in 1646, says:—"For their rescue may be collected, *mons pietatis* sive *charitatis* or bank of piety or charity, as they of Trent fitly call it."

Again:—"For borrowers in trade for their supply as their occasion shall require, may be erected *mons negotationis* or bank of trade."

Tolet speaks of two kinds of banks, namely, "*Mons fidei* or bank of trust, which Clement XII. instituted at Rome; he that put his money into this bank was never to take it out again, and received 7 per cent., and of *mons recuperationis* or bank of recovery, in which the interest was 12 per cent." These were simply perpetual and terminable annuities.

Several proposals for forming banks in England were made in the time of Cromwell. Cradocke, a London merchant, says:—"A bank is a certain number of sufficient men of credit joyned together in a stock, as it were, for keeping several men's cash in one treasury, and letting

"out imaginary money (i.e. credit) at interest for three or more in the hundred per annum to tradesmen or others that agree with them for the same, and making payment thereof by assignation, passing each man's account from one to another, yet paying little money." And he says that "the aforesaid bankers may furnish another petty bank (or mount) of charity."

In a little tract entitled "A discourse concerning banks," published in 1697, it says:—"Banks of the second kind, called in Italy monti, which are for the benefit of the income only are the banks of Rome, Bologna, and Milan. These banks were made up of a number of persons who, in time of war or other exigencies of State, advanced sums of money upon funds granted in perpetuum, but redeemable. . . . The third kind of banks which are both for the convenience of the public and the advantage of the undertakers, are the several banks of Naples, the bank of St. George at Genoa, and one of the banks of Bologna. These banks having advanced sums of money at their establishment did not only agree for a fund of perpetual interest, but were allowed the privilege of keeping cash."

The Bank of England was of this last kind. It was a company which advanced a loan to the Government, and received in exchange a perpetual annuity, and was allowed to carry on ordinary banking business as well.

Blackstone says:—"At Florence, in 1344, Government owed 60,000*l.*, and being unable to pay it, formed the principal into an aggregate sum, called metaphorically a mount or bank."

The public debts, popularly called the funds or consols, are legally termed "Consolidated Bank Annuities."

There has been one instance in this country of a bank formed out of the contributors to a public loan merely. This was the Million Bank. This company existed till nearly the end of the last century.

The essential feature of all these banks was to buy money from the subscribers as a mutuum, which thus became the property of the borrowers, and in exchange for the money they issued a credit, or a certificate with a promise to pay interest.

The meaning of the word "to bank" is to issue credit.

ON THE MECHANISM OF BANKING.

A banker is therefore a trader whose express business it is to issue credit.

It has now to be shown how a banker trades.

Suppose his customers pay in 10,000*l.* to their accounts. The money becomes his absolute property as a mutuum. In fact, he buys the money from his customers, and in exchange for it he gives them a credit in his books; that is, he creates and issues a right of action to his customers which entitle them to demand an equal sum of money at any time from him.

This credit, debt, or right of action, is termed in banking language, a deposit.

After such an operation his accounts would stand thus—

Liabilities.		Assets.	
Deposits	- £10,000	Cash	- £10,000

Now, though his customers have right of action against the banker to demand back an equal amount of money to what they have paid in, yet persons would not place money with their banker if they wanted to draw it out again. Nevertheless, some will want to draw out part of their funds; but if some draw out money others will pay money in, probably an equal sum. In ordinary and quiet times a banker's balance in cash will seldom differ by more than one thirty-sixth part from day to day. So that if he retains one-tenth of his cash to meet any demands that may be made upon him, that is ample and abundant in all ordinary times.

If, then, in the above example, the banker retains 1,000*l.* in cash to meet any demands upon him, he has 9,000*l.* to trade with; and it is just in the method in which bankers trade that so much misconception exists.

It is commonly supposed that when a banker has the 9,000*l.* to trade with, he employs it in purchasing bills of exchange to that amount, and that he receives a profit only on the 9,000*l.*; but that is a complete misconception of the nature of banking.

A "banker" never purchases a bill with money, that is the business of a bill discounteur.

A "banker" trades in this way. He sees that 1,000*l.* in cash is sufficient to support liabilities of 10,000*l.*; consequently he argues that 10,000*l.* in cash will support liabilities to several times that amount in credit.

When a "banker" discounts a bill he simply buys a right of action, and he buys it exactly in the same way as he bought the money. That is, he creates a credit, or a debt, or a right of action against himself in his books to

the amount of the bills, but at the same time charging his customer with the interest agreed upon, which is called discount.

That is, he buys a right of action payable at a future time by creating and issuing a right of action payable on demand; and this right of action, credit, or debt is equally, in banking language, termed a deposit, as the right of action he created to buy the money.

Suppose that the "banker" buys 40,000*l.* of commercial bills at three months, and the discount is four per cent., then the sum to be retained would be 400*l.* Consequently, in exchange for bills to the amount of 40,000*l.*, he would create credits, debts, or rights of action, technically termed deposits, to the amount of 39,600*l.*

Hence, just after buying the bills, and before his customers begin to operate on their accounts, his accounts would stand thus:—

Liabilities.		Assets.	
Deposits	- £49,600	Cash	- 10,000
		Bills of Ex-	
		change	- 40,000
	<u>£49,600</u>		<u>£50,000</u>

The balance of 400*l.* being his own property.

By this process the "banker" has added or created 39,600*l.* in credit to the previously existing cash, and his profit is clear. He has not gained 400*l.* on the 9,000*l.* in cash, but on the 40,000*l.* of bills he has bought.

This is the true exposition of the nature of banking. Hence the definition of a banker is clear.—"A banker is a trader whose business is to buy money and debts by creating other debts"

Thus it is seen that the essential and distinctive feature of a "bank" and a "banker" to create and issue credit payable on demand.

A bank is not, therefore, an office for borrowing and lending money; it is a manufactory of credit, which produces all the effects of an equal amount of gold. It is, as Bishop Berkeley said, a gold mine.

To show the enormous effects of banking, and especially its importance in the present inquiry, it may be stated that the Scotch banks in 1886, on a cash reserve of 4,042,376*l.*, maintained liabilities to the amount of 90,781,337*l.*, that is a ratio of more than 22 to 1.

It would have a material bearing on this inquiry if a complete account of the statistics of the English banks could be obtained in as full a form as those of the Scotch banks, but it does not exist. However, the enormous magnitude of the banking system in England may be conjectured, as it has been recently stated that the deposits, i.e., the liabilities in banking credits, of the London banks alone amount to 525,000,000*l.*

These colossal masses of credit which produce all the effects and act upon prices exactly in the same way as an equal amount of gold, show what an important effect on prices banking credits have, and how entirely misleading is the notion that banks are merely offices which borrow and lend out actual money.

ON A COMMON ERROR RESPECTING DEPOSITS.

It is indispensable to notice an error which prevails almost universally respecting the word deposit.

The word depositum is one of that class of words, of which we have already noticed several instances, which originally meant a material thing, and in modern times has come to mean a right.

A depositum in Roman law means anything which is placed in the charge or custody of some person for the mere purpose of safe keeping, and without the property in it passing to him, or his being allowed to use it for his own advantage.

It is part of the business of a London banker to take charge of his customer's plate, jewelry, &c., if required to do so. These things so placed with the banker are a depositum; he acquires no property in them, and he receives no remuneration for so doing.

It is commonly supposed that when a customer pays in money to his account, that it is a deposit, and the banker is supposed to make advances out of his "deposits." These ideas are erroneous. The money paid in is not a *depositum*; it is a *mutuum*; it becomes the banker's property, and he may use it in any way he pleases.

In banking language it is not the money which is the deposit but the credit or right of action which is created in exchange for it, so when a banker discounts a bill, he does it by creating a credit or right of action in his books, and this credit is also called a deposit.

A banker's deposits are his liabilities, and are the price he pays for the money and bills which are his assets.

A deposit is, then, simply a banking credit, and a banker does not make advances out of his deposits, but by creating deposits.

IN BANKING LANGUAGE A DEPOSIT AND AN ISSUE ARE THE SAME.

It must, therefore, be carefully observed that in banking language a deposit and an issue are the same thing. A deposit is simply a credit in a bank's books giving the customer a right of action against it for a sum of money. As soon as the bank has created a credit, or deposit, in its books in favour of a customer, it has issued a right of action against itself. The word issue comes from *exitus* or going forth, and in mercantile law, to issue an instrument is to deliver it to anyone so as to give him a right of action against the deliverer. A deposit is therefore a liability of the bank, and a depositor is a creditor of the bank.

It in no way increases the bank's liability to write the liability down on paper. The liability is created as soon as the deposit or credit is written down in the bank's book, and the liability is only written down on paper in the form of a cheque or banknote for the convenience of transferring the credit or right of action to someone else.

It is, therefore, a fundamental error to distinguish banks as banks of deposit and banks of issue. The only distinction is between banks which buy money exclusively, so that the credit created exactly equals the amount of the money bought; or whether in addition to money, they buy bills of exchange with their own credit, and so create credit in excess of the money they hold.

ON THE METHOD OF UTILISING BANKING CREDITS.

The banker, then, having issued these credits, deposits or rights of action against himself to his customers, they of course cannot transfer them to any one else by manual delivery. In order to be capable of manual delivery they must be recorded on paper, and that might be done in two forms.

1. The banker might give his customer his own notes promising to pay a certain sum to the customer or to bearer on demand.

2. The customer might write a note to the banker desiring him to pay a certain sum to a certain person, or to his order, or to bearer. These, in modern language, are termed cheques.

Bank notes and cheques do not create liabilities, they are merely for the purpose of transferring the liabilities termed deposits, or credits in the bankers books.

From the origin of banking London bankers all issued notes until about 1793, when they gave up the practice of their own accord, though they were not forbidden to do so until 1844. After 1793 credits in London banks were only transferred by cheques.

The banker having created this deposit, the following different results may take place.

1. The customer may draw out the actual money. If he does so it is a resale of money to the customer. The banker buys up the right of action against himself, and his liability is extinguished.

2. The cheque or note may circulate in commerce and effect any number of payments, exactly like money; and it may ultimately be paid in to the account of another customer of the same bank, and the whole series of transactions be closed by the transfer of credit from one account to another.

3. The cheque or note may, after performing similar exchanges, come into the possession of the customer of another banker, and be paid into that bank. So the banker becomes debtor to the customer of another bank. But if the banker A becomes debtor to the customers of banker B, the chances are that about an equal number of the customers of A will have claims against B. If the mutual claims of the customers of each bank are equal, the respective orders are interchanged, and the credits readjusted to the accounts of the different customers without any payment in money. Thus, if the mutual claims of any number of bankers exactly balanced, any amount of business might be carried on without requiring a single coin. This is effected by the organisation of the clearing house described further on.

It is seen from this that so far as economics is concerned, cheques and bank notes stand on exactly the same footing, and that the more extensive the banking system is, the less is the quantity of coin required.

The misconception of the meaning of the word deposit has led to most serious errors regarding the nature of London banking.

Because London bankers do not issue notes, it has been very generally supposed that London bankers do not create credit, but only lend out the money they have placed

with them. But this is a most important error. London bankers create credits in their books, and all their advances are made by creating these credits, just as they always did. The only difference is that these credits are only circulated by cheques.

When it is said that the London bankers have such an amount of deposits, it is commonly supposed that they have that amount of cash to lend out. But the cash a bank has is shown in its assets. These figures do not show the quantity of cash the banks have to trade with, but they show the quantity of business the banks have done, and the liabilities they have created. They are in fact nothing but bank notes in disguise. A sudden increase in banking deposits is simply an inflation of credit, exactly similar to a sudden increase of bank notes. After all the great monetary panics it is invariably observed that banking deposits diminish. This is supposed to be a diminution in cash, but that is an error. After a great monetary panic fewer bills are created, consequently there are fewer bills for the banks to purchase, and if they have no bills to buy they cannot create deposits; hence, this diminution of deposits is not a diminution of cash, it is a contraction of credit.

ERROR OF THE COMMON DESCRIPTION OF BANKING.

From the preceding account of the actual mechanism of banking, it is seen what a complete misconception of it, it is to say, that bankers are merely agents between persons who wish to lend and those who wish to borrow. This is entirely untrue in the ordinary sense of "lending" and "borrowing," because in the ordinary case of "lending" the lender deprives himself of the use of the thing "lent." But when a person pays in money to his banker he does not mean to deprive himself of its use; on the contrary, he means to have the same free use of it as if it were in his own house. He "lends" his money to his banker, but at the same time has the free use of it. The banker employs that money in promoting trade. Upon the strength of it he buys debts with his promises to pay several times exceeding the amount of the cash he has, and the persons who sell him their debts have the free use of the very coin which the lender has the same right to demand. Thus, the "lender" and the "borrower" have the same rights at the same time to demand the same coin. All banking depends on the calculation that only a certain portion of each set of customers will demand the actual cash, but that the majority will be satisfied with the mere promise to pay or the credit.

Banking, like insurance, depends entirely on the doctrine of chances. It is practically possible that a banker may be called upon to pay all his liabilities on demand at once, just as it is theoretically possible that all the lives insured in an office may drop at once, or that all the houses insured may be burnt down at the same instant. A large and sudden demand for money on a bank is termed a run, and a run on a bank is analogous to a pestilence or a conflagration to an insurance office. But all banking and insurance is based on the expectation that these contingencies will not happen. A banker multiplies his liabilities to pay on demand, and keeps by him a sufficient amount of cash to ensure the immediate payment of all claims which are likely to be demanded at one time. If a pressure comes upon him, he must sell some of the securities he has bought, or borrow money upon them.

ON THE CLEARING HOUSE.

Like everything else connected with banking, the clearing house is a subject of profound misconception.

It is usually supposed that the clearing house is an example of the principle of compensation, and that the credits exchanged in it are extinguished. In foreign treatises it is usually called *Maison de Liquidation* or *Compensation*. This, however, is a complete error.

It has been seen that if any number of the customers of the same bank have dealings amongst themselves, and give each other cheques on their accounts, any number of transactions may be settled by the simple transfer of credits from one account to another, without a single coin being required, so long as the receivers of the cheques do not draw out the money.

The clearing system is a device by which all the banks which join in it are formed, as it were, into one huge banking institution for the purpose of transferring credits from one bank to another, just in the same way as credits are transferred from one account to another in the same bank, without the use of coin.

Before the institution of the clearing house, the system that prevailed was this: every banker has every morning claims against his neighbours, and they have claims against him. At the same hour clerks started from each bank to collect the payment due to it in money and notes. When the clerks returned, the credits were readjusted among the

respective accounts. To meet the claims against it, each bank had to keep a large amount in cash or notes. The consequence is that an immense quantity of cash and notes had to be kept out of active circulation for no other purpose than for meeting the bankers' claims against each other.

The Italians devised a plan by which clerks from the respective banks should meet together and set off their claims against each other and pay only the differences in cash. This system was then adopted in Scotland, and afterwards in London.

It is often supposed that in this system, the credits are extinguished, by compensation, but this is an error as may be seen by the following account of its mechanism.

Suppose that a customer of the Commercial Bank has 100*l.* in notes of the Royal Bank paid to him, then he is creditor to the Royal Bank to that amount. He then pays these notes into his account, and constitutes the Commercial Bank his agent to collect them from the Royal Bank and place the proceeds to his account.

Suppose that in a similar way a customer of the Royal Bank has been paid 100*l.* in notes of the Commercial Bank and pays them into his account. He then constitutes the Royal Bank his agent to collect his debt from the Commercial Bank and place the proceeds to his account.

Each bank in such case is debtor to the customer of the other.

The full way of proceeding would be for each bank to send a clerk to the other to obtain payment of its notes in cash. Each bank then having obtained payment, would credit its customer with the amount. In this way it would require 200*l.* in cash to adjust the matter. When this was done, each bank would be debtor to its own customer, and there would be no destruction of credit, which would remain as before.

The transaction however may be effected in a much simpler way. Let the agents of the two banks meet. The agent of the Commercial Bank says to the other, "In consideration of your giving up to me the notes on which I am debtor to your customer, I agree to become debtor to my own customer."

In a similar way the agent of the Royal Bank says, "In consideration of your giving up to me the notes on which I am debtor to your customer, I agree to become debtor to my own customer to that amount."

The clerks then exchange notes. By this means, each bank is released from the payment of its notes, which as has been shown, is equivalent to a payment in money, and each bank enters the amount to the credit of its own customer.

By this means each bank instead of being debtor to the customer of the other, becomes debtor to its own customer, and the use for 200*l.* in cash is saved.

Thus each bank, in consideration of being released from its debt to the customers of the other, creates a new debt to its own customer. Thus, on the whole, there is no annihilation of mutual debts as in the case of compensation, but the creation of new debts in substitution of old ones, which is novation, and the result is that the quantity of debt remains exactly as it was before.

The clearing house is therefore not a *maison de liquidation* or compensation, as is so often alleged, but a *maison de novation*.

Exactly the same result takes place when cheques are used. However numerous the banks may be which join in this system, the effect is the same. Credits are not destroyed, they are only transferred from one bank to the other without the use of coin. The importance of this method may be understood when every year the credits interchanged between the several banks in the London Clearing House alone amount to about 6,000,000,000*l.*, without the use of a single coin. There are besides the country clearing house and clearing houses in all the principal cities of the country and in Scotland.

The saving of coin and notes by this system of clearing must be something enormous, nor is it easy to say how it can be calculated. It is in fact an immense augmentation to the resources of the country, because it releases an enormous quantity of coin and notes, which would have no use but to settle debts amongst bankers, and allows it to be employed in active operation.

ON THE SCOTCH SYSTEM OF BANKING.

It is necessary now to give a short exposition of the system of banking in Scotland, which is very little understood in this country, and is a striking example of an immense superstructure of credit built up on a small basis of bullion.

The Bank of Scotland was founded in 1695, with powers of unlimited issue, both in amount and denomination. It first issued *l.* notes in 1704. It received a monopoly of banking for 21 years. In 1727 the Royal Bank was founded.

In the very contracted sphere of commerce in Scotland, there were not sufficient commercial bills in circulation to exhaust the credit of the banks, and the new bank devised a new scheme for getting its credit into circulation.

It agreed upon receiving sufficient guarantees to open credits in favour of respectable and trustworthy persons. All advances are made exclusively in the bank's own notes.

These credits are granted to all classes of society, to the poor as freely as to the rich. Everything depends on character. Almost every young man commencing business in Scotland, does it by means of a cash credit.

It is by means of these cash credits that the agriculture of Scotland has been almost entirely developed, and all public works are formed.

It has been shown the true definition of credit is the present right or the present value of a future profit, and every future profit from whatever source arising, has a present value, which may be brought into commerce, and bought and sold like any material chattel.

Thus the land and traders are economic quantities producing future profits, and mercantile banking is founded as discounting the future profits of traders.

The system of cash credits is applied in Scotland to discount the future profits of the land and of every public work.

About the middle of the last century the energies of the people were directed to agriculture and commerce. There was abundance of fertile and reclaimable land, and abundance of people, but there was no money to pay wages to persons employed to reclaim the land.

The banks having habituated the people to receive their *l.* notes in all respects as money, threw out branches in all directions. The farmers received leases of their farms, and upon the security of these leases and personal friends, the banks granted cash credits to their farmers, and made them advances exclusively in their *l.* notes. With these *l.* notes, the farmers employed the labourers in reclaiming the land. The notes were employed exactly in the same way as money would have been, and they produced exactly the same effects as money would have done.

It is almost entirely by means of these cash credits that the prodigious progress in agriculture was made in Scotland during the last 130 years.

All public works of every description, roads, canals, docks, harbours, railways, markets, &c., have all been made by means of these cash credits. It was stated that the Forth and Clyde Canal was executed by means of a cash credit of 40,000*l.* granted by the Royal Bank. When the directors of one of these works have got their Act, they obtain a cash credit at a bank, which supplies the necessary funds in its own *l.* notes, and the debt is paid off by the profits of the work.

It is thus seen how credit is applied to the formation of new products equally well as to the transfer of existing ones. Credit is purchasing power equally with money, and it may be applied to the purchase of labour to form new products, equally well as to transfer existing ones. The principle of the limit, however, is exactly the same in both cases; namely, the present value of the future product.

The invention of cash credits, and the *l.* notes by which they are worked, have advanced the wealth of Scotland by centuries, and that is the reason why the people of Scotland always strenuously resist any attempt to interfere with them.

The system of Scotch bankings show how very much more important a part credit plays in modern commerce than actual money, and well exemplifies Daniel Webster's aphorism, "Credit has done more a thousand times to enrich nations than all the mines of all the world."

APPENDIX IV. (A).

Papers put in by Mr. J. C. Fielden.

See Questions 7950, 7982.

Society.		Average Members.	Average Number of Members out of Work.	Average Cost annually.
				£
Amalgamated Engineers	1871-5	41,806	625	19,190
	1882-6	50,639	2,351	57,157
Carpenters and Joiners amalgamated -	1871-5	12,105	173	3,679
	1882-6	23,801	1,179	25,146
Steam Engine Makers' Society -	1871-5	3,524	27	918
	1882-6	4,881	154	3,507
Friendly Society of Iron Founders -	1871-5	11,285	333	7,582
	1882-6	12,039	987	20,120
Boilermakers and Iron Shipbuilders -	1871-5	12,910	447	3,781
	1882-6	27,920	3,707	28,570
Society of Coach- makers -	1871-5	6,702	57	1,134
	1882-6	4,552	116	2,313
Associated Iron Moul- ders of Scotland -	1871-5	3,601	172	3,444
	1882-6	5,618	609	12,190
London Society of Compositors -	1871-5	3,680	297	4,661
	1882-6	6,141	693	9,707
Associated Blacksmiths' Society -	1871-5	1,887	16	403
	1882-6	2,440	193	2,313
Alliance Cabinet Makers' Association -	1871-5	1,140	3	60
	1882-6	1,307	74	1,071

TOTAL MEMBERS, TEN SOCIETIES.					
Average from 1871-5	-	-	98,640	2,150	44,852
„ 1882-6	-	-	139,338	10,063	162,494

Average increase of members - 42 per cent.
Per-centage unemployed - 1871-5 period, 2·18
" " - 1882-6 " 7·22

£
Total support given by these 10
societies to the unemployed in
1871-5 - - - 224,260
Total support given by these 10
societies to the unemployed in the
years 1882-6 - - - 812,470

Based on the experience of the above 10 societies the
number of unemployed in the country would be over
700,000 (seven hundred thousand persons).

J. C. FIELDEN.

APPENDIX IV. (B.).

See Question 7989.

The growth of quantities of raw cotton retained
for consumption in our factories: in periods of five
years:—

Period.		Million lbs.	Increase or Decrease. (Million lbs.)
1866-70 (inclusive)	-	4,955	—
1871-75	-	6,396	Increase 1,441
1876-80	-	6,348	Decrease 48
1881-85	-	7,178	Increase 830

Total increase, 2,223 million lbs.
Increase for 15 years, 45 per cent.

Estimated Population of Lancashire.

1867 - - - 2,600,000
1882 - - - 3,500,000
Increase - - - 900,000
Or 35 per cent.

Comparative Statistics of Cotton Trade.

Engaged in the Cotton Trade.	Spindles.	Looms.	Operatives.	Population of Lanca- shire.
Year 1874 - -	*37,515,000	463,118	479,515	—
" 1886 - -	*42,700,000	561,000	505,000	—
Increase - -	5,185,000	97,882	25,485	—
Per-centage of in- crease.	13·8	21·1	5·3	24
Average annual in- crease (per cent.)	1·15	1·9	·44	2

* Exclusive of those used for "doubling" purposes.

Note.—For that proportion of the population of
Lancashire representing families working in cotton
mills, it may be stated that during the past 12 years
(1874 to 1886) the increase of numbers has been four
times as fast (at the least) as the opportunities of
employment.

The population of Lancashire has increased during
this century as follows:—

Year.	Population.	Increase.	Per-centage of Increase.
1801 - - - -	673,486	—	Per cent.
1811 - - - -	828,429	154,943	23
1821 - - - -	1,052,948	224,519	27
1831 - - - -	1,330,854	283,906	27
1841 - - - -	1,667,054	336,200	25
1851 - - - -	2,031,236	364,182	22
1861 - - - -	2,429,440	398,204	20
1871 - - - -	2,819,495	390,055	16
1881 - - - -	3,454,225	634,730	22

The period 1861 to 1871 was that of the cotton
famine.

The increase between 1871 and 1881 is nearly equal
to the entire population of Lancashire at the beginning
of the century.

APPENDIX IV. (C.)

See Question 8013.

DEAR MR. FIELDEN,

October 15, 1887.

COPIES of two letters received from A. T. Whittle, Esq. (Preston Junction, Bamber Bridge), on the subject of the cost of production in Indian cotton mills.

Spinning Wages.

Analysis.

DEAR SIR, September 14, 1887.
I HAVE the pleasure to place before you the figures promised in our conversation of yesterday:—

Spinning.			
		Pies.	D.
Fuel -	-	3·25	= 406
Wages -	-	7·32	= 915
Stores -	-	2·94	= 367
Interest -	-	3·00	= 375
Insurance -	-	·50	= 62
Depreciation -	-	2·00	= 25
Loss -	-	9·60	= 12
		28·61	= 3·575
or rather under 3½ D.			

Weaving.

		Pies.
Fuel -	-	3·25
Wages -	-	9·02
Stores -	-	2·00
		14·27

Blow room -	-	216
Cards -	-	376
Drawings -	-	201
Frames -	-	859
Ring throistles -	-	318
Mules -	-	1322
Engines, boilers, me- chanics, engineer -	-	842
Reeling room -	-	908
Manager, office clerks, Sepoys -	-	1010
Sundries -	-	1090
		7002

In a Bombay mill the fuel item will vary from 1·95 to 2·50 pies per pound of 20's, yarn and wages from 5·00 to 6·50 pies per pound. Our fuel item is heavy, owing to carriage by rail from Bombay to the factory, a distance of 400 miles.
The above rates are on a production averaged out at 20's.

Winding, warping, sizing, and weaving, cost from 9 pies to 10 pies per pound; the details I have not got with me. I may, however, mention that the size put on ordinary Manchester goods in England is fully 200 per cent. above what we can do in India.
You will note the difference between the cost of ring and mule spinning.

APPENDIX IV. (D.).

Comparative Exports of Cotton Yarn from India and Great Britain to China, Japan, and Hongkong, with Prices of Silver.

See Question 8036.

Total Exports of British Cotton Yarns to all Countries, in Periods of Five Years.

1866-70 (inclusive) -	-	837 million lbs.
1871-75 ,, -	-	1,057 ,,
1876-80 ,, -	-	1,152 ,,
1881-75 ,, -	-	1,274 ,,
Total growth in 15 years -	-	437 ,,
Average annual growth -	-	5·9 ,,

Year.	In millions of lbs.		Silver. (Per oz.)
	India.	Great Britain.	
1876-7 -	7·9	29·8	Pence. 52½
1881-2 -	30·7	47·4	51½
1882-3 -	45·2	34·3	51½
1883-4 -	40·8	33·4	50½
1884-5 -	65·8	38·8	50½
1885-6 -	78·2	33·0	48½
1886-7 -	93·8	26·9	45½

Note.—The exports from 1st April to 30th June 1887 from Indian mills to above markets was 29,700,000 lbs., or at the rate of 119 million lbs. per annum. Increase of exports from India in 11 years was 86 million lbs., or at the rate of nearly 8 millions per annum, whilst the increase in the exports from Great Britain in that period did not reach 6 million lbs. per annum.

APPENDIX V.

(Paper put in by Mr. T. Comber.)

(Question 8149.)

COST OF TRANSPORT OF WHEAT FROM INTERIOR DEPÔTS IN INDIA AND AMERICA TO UNITED KINGDOM, per QUARTER.

YEAR.	Average Price of Wheat in United Kingdom.	Cost of Carriage. Indian Wheat.			Cost of Carriage. American Wheat.			Reduction compared with 1873, in		
		Inland.—Jubbulpore to Bombay.*	Sea.—Bombay to United Kingdom.	Together.	Inland.—Chicago to New York.*	Sea.—New York to United Kingdom.	Together.	Price of Wheat.	Transport from India.	Transport from America.
1873	s. d. 58 8	s. d. 9 8	s. d. 13 0	s. d. 22 8	s. d. 6 5	s. d. 7 0	s. d. 13 5	s. d. —	s. d. —	s. d. —
1874	55 9	9 7	11 11	21 6	4 8	6 6	11 2	2 11	1 2	2 3
1875	45 2	6 10	11 4	18 2	3 10	6 0	9 10	13 6	4 6	3 7
1876	46 2	6 6	10 6	17 0	3 2	5 6	8 8	12 6	5 8	4 9
1877	56 9	6 7	9 2	15 9	3 9	4 10	8 7	1 11	6 11	4 10
Average of 4 years	51 0	7 4	10 9	18 1	3 10	5 8	9 6	7 8	4 7	3 11
1878	46 5	6 3	4 10	11 1	3 1	5 0	8 1	12 3	11 7	5 4
1879	43 10	6 4	6 3	12 7	3 10	4 2	8 0	14 10	10 1	5 5
1880	44 4	6 4	8 1	14 5	4 1	3 10	7 11	14 4	8 3	5 6
1881	45 4	6 4	9 2	15 6	2 9	2 10	5 7	13 4	7 2	7 10
1882	45 1	6 5	6 10	13 3	2 8	2 7	5 3	13 7	9 5	8 2
Average of 5 years	45 0	6 4	7 0	13 4	3 3	3 8	6 11	13 8	9 4	6 6
1883	41 7	5 8	6 2	11 10	2 10	2 8	5 6	17 1	10 10	7 11
1884	35 8	5 7	4 3	9 10	2 2	2 4	4 6	23 0	12 10	8 11
1885	32 10	5 4	4 10	10 2	1 11	2 2	4 1	25 10	12 6	9 4
1886	31 0	5 1	3 10	8 11	2 11	2 2	5 1	27 8	13 9	8 4
1887, 1st 6 months	33 11	4 11	4 6	9 5	2 9	1 8	4 5	24 9	13 3	9 0
Average of 4½ years	35 0	5 4	4 9	10 1	2 6	2 2	4 8	23 8	11 7	8 9

* This does not include cost of transport from the producing districts to Jubbulpore and Chicago.

APPENDIX VI.

PAPER put in by Mr. W. FOWLER.

(See Question 8379.)

STATEMENT showing the QUANTITIES of WHEAT Exported, and the QUANTITIES Imported, into the UNITED KINGDOM from RUSSIA IN EUROPE during each of the last 20 years; and the Exchange of the Paper Rouble.

Years.	Quantities Exported from Russia in Europe.	Quantities Imported into the United Kingdom from Russia in Europe.	Exchange.	Years.	Quantities Exported from Russia in Europe.	Quantities Imported into the United Kingdom from Russia in Europe.	Exchange.
	Cwts.	Cwts.	Pence.		Cwts.	Cwts.	Pence.
1867	26,913,722	14,025,236	30	1877	27,057,066	10,828,236	25
1868	21,107,663	10,053,617	30	1878	53,956,075	9,021,679	22
1869	19,896,300	9,158,331	30	1879	43,505,875	8,004,591	24
1870	30,155,400	10,269,198	29	1880	19,185,303	2,880,324	25
1871	36,020,013	15,654,000	31	1881	25,694,991	4,046,649	25
1872	30,774,497	17,855,658	32	1882	40,071,741	9,575,632	24
1873	21,741,138	9,595,669	32	1883	43,956,250	13,346,762	23
1874	25,383,747	5,725,661	33	1884	35,531,250	5,402,396	23
1875	29,776,822	10,005,325	33	1885	48,309,375	11,975,644	23
1876	28,864,119	8,780,628	31	1886	27,853,604	3,720,662	21

APPENDIX VII.

CIRCULAR LETTER addressed to certain PERSONS in FOREIGN COUNTRIES.

QUESTIONS.

Gold and Silver Commission,
8, Richmond Terrace, London,
August 1887.

SIR,

THE Commission appointed by Her Majesty's Government in the course of last year to investigate the recent changes in the relative values of the precious metals have made some progress with their inquiry, and have taken a considerable body of evidence from persons in this country; but they feel that they would have imperfectly discharged the duty imposed upon them if they had not had recourse to some of the many competent authorities on the subject who reside in foreign countries.

It is, however, obviously impossible to elicit the views of these gentlemen by the usual method of oral examination, and the Commission have therefore drawn up the enclosed paper of questions, comprising the more important points on which they are anxious to obtain the opinion of those who have studied the subject.

Should you feel disposed to assist the Commission in this way, they would be very much obliged if you would favour them with written answers to any or all of these questions.

If, however, you are unable, for any reason, to comply with the invitation of the Commission, they desire me to convey to you their apologies for having ventured to trouble you with this letter.

I forward under another cover a copy of the First Report of the Commission, which has been recently issued.

I have, &c.
(Signed) GEO. H. MURRAY,
Secretary to the Commission.

1. To what do you attribute the fall in the value of silver, as compared with gold, since 1874?
2. What probability is there of a continuance of the fall?
3. To what do you attribute the fall in the wholesale prices of many commodities which has been in progress during the last 10 or 12 years?
4. Has it extended to (a) retail prices, (b) wages and other payments for services rendered, (c) land and houses?
5. Has the fall resulted in any material prejudice to the commercial or general interests of the world?
6. Do you consider that the countries using the gold standard, or any of them, are suffering from an injurious contraction of the currency which might have been obviated or mitigated by an increase in the supply of gold?
7. To what extent and in what way are prices affected by the quantity of the metal or metals used as standards of value?
8. What is the relation, if any, between the supply or quantity of the precious metals and the fluctuations of credit?
9. Has there been during the last 15 years any important development of the system of cheques, bank credits, bills of exchange, or other means of economising the use of the precious metals?
10. Do you consider that an international agreement could be made for the free coinage of gold and silver as legal tender money at a fixed ratio?
11. Is it in the power of Governments to maintain such a ratio if agreed upon; and would the practice of the commercial world follow the law?
12. What would be the effect of such an agreement, if carried out, upon (a) prices, and (b) the production of the precious metals.
13. Do you consider an international agreement for bi-metallism possible on any other ratio than 15½ to 1?
14. Failing an international bi-metallic agreement, what measures could be adopted by the commercial nations of the world for giving increased stability to the relation between gold and silver?
15. It is argued that, in the absence of bi-metallism, the effect of any disturbance of the currency is limited to half the currencies of the world, and thereby increased in intensity. Do you consider this view correct; and, if so, do you think the evil a serious one?
16. If the effect of such disturbances could be spread over all countries, would greater stability of the standard of value be secured thereby?

ANSWERS RECEIVED.

- (1.) M. Pierson (Holland).
- (2.) Professor Nasse (Germany).
- (3.) Professor Lexis („).
- (4.) M. de Laveleye (Belgium).
- (5.) Hon. David A. Wells (United States).

(1.) PROFESSOR PIERSON, President of the Netherlands Bank, Amsterdam.

SIR, Amsterdam, 23rd September 1887.
In reply to your letter of 29th August, I take much pleasure in giving you my views on the subjects mentioned in your list of questions; though I am afraid I shall not be able to tell you anything new, these subjects having been so long and so fully discussed already by the best authorities in political economy.

I. To what do you attribute the fall in the value of silver, as compared with gold, since 1874? I attribute the fall in the price of silver chiefly to increased production. If the coinage of that metal in the mints of Germany, the states of the Latin Union, and Holland, had not been almost entirely stopped, a demand would have arisen quite sufficient to absorb the quantities produced. France, for instance, which prevented a serious fall in the silver-price of gold after the discoveries in California and Australia by purchasing gold and selling silver to a very large extent, would then have purchased silver and sold gold in no smaller quantities. As it was, the increased supply was not met by an increased demand, and a strong depreciation of silver became inevitable.

I may add, that, owing to the peculiar economic condition of India at the period when the depreciation commenced, a large exportation of silver to that country was impossible. Silver has been locally depreciated in India a few years before the general depreciation began.

This requires some explanation. As has been shown by Ricardo,* by Senior in his lectures on the cost of obtaining money, and by Cairnes in his *Leading Principles*,† the value of money, its purchasing power, is not the same in all parts of the globe, and it is liable to local variations. Such a local variation has taken place, as regards silver, in India during the civil war in America, the effect of which was to bring about an unprecedented rise in the price of the greatest Indian article of export, cotton. In consequence of this, the "cost of obtaining money" in India was much reduced; money—silver—was depreciated in India, wages rose. Therefore, when the general depreciation commenced all over the world, it had been forestalled in that part of the globe. India was glutted with silver. But the cause tending to maintain this state of things had ceased to operate; the price of cotton had fallen. Under ordinary circumstances India would have sent back a large portion of its silver to Europe. But the general depreciation prevented her from doing so; and now there were two opposite forces, one tending to produce an export of silver from India to Europe, the other (the fall in the price of silver) tending to produce an export from Europe to India. It has appeared that the latter was the stronger, after all. Yet the exportation could not be so considerable, as it certainly would have been, if cotton had not risen in 1861-65, nor fallen afterwards.

Speaking commercially, not scientifically, this might be stated as follows: The decline in the price of cotton after 1865 rendered the Indian balance of payments less favourable, and thus impeded the export of silver to India to a certain extent.

I subjoin the following table for illustration :—

Average Price of Silver.		Exports of Cotton.	
			£
1861-65	61½ pence.	1865	37 millions.
1867	60½ "	1867	16 "
1874	58½ "	1874	13 "
1879	51½ "	1879	7 "

I will show later on, that cotton is not the only commodity exported by India whose price has fallen when silver began its course of depreciation.

To resume: the fall of silver has been chiefly caused by increased production, but that cause has been rendered more effective—

- (a.) By the monetary measures adopted by Germany, France, &c.
- (b.) By the peculiar economic condition of India at that period.

II. What probability is there of a continuance of the fall? I do not attempt to answer this question. Much depends on the Bland Act being continued or suspended.

III. To what do you attribute the fall in the wholesale prices of many commodities which has been in progress during the last 10 or 12 years? I attribute the fall in the wholesale prices of many commodities, which has been in progress during the last 10 or 12 years, also chiefly to increased production. If you had said, "during the last 14 or 15 years," I should have answered, partly to increased production and partly to the diminution of the quantity of notes, not represented by coin and bullion, circulating in the principal countries of the world. For this latter cause has been very powerful in the first years after 1873, as may be seen by consulting Neumann-Spallart's *Uebersichten der Weltwirthschaft*, Jahrgang 1883-4, page 452, where it is shown that in the six countries named there the amount of notes unrepresented by coin and bullion was :—

—	Reichsmarks.	—	Reichsmarks.
In 1873	7,914 millions.	In 1880	4,772 millions.
" 1874	7,156 "	" 1881	5,532 "
" 1875	6,747 "	" 1882	5,574 "
" 1876	5,931 "	" 1883	5,162 "
" 1877	5,542 "	" 1884	4,930 "
" 1878	5,217 "	" 1885	4,148 "
" 1879	4,856 "		

In the last 10 years, however, the chief cause, in my opinion, has been increased production.

Take, for instance, iron. The entire production in 1877 was 14,032 thousands of tons. In 1883 it rose to 21,528, or 50 per cent. more. Since that year it has fallen off, but it cannot be much less than 19,000.

Or wheat. The United States exported in 1876-7, 136 million bushels of bread stuffs; in 1884-5, 198. Russia in 1876, 53 million hectolitres, in 1884, 77 millions. India in 1876-7, 5,583,000 cwts., in 1885 15,831,000.

Or cotton. The United States crop was 4,400,000 bales in 1876-7, 6,500,000 in 1885-6.

I am aware that a great many people attribute the fall of prices to scarcity of gold. But in the first place, the decrease in the production and the increase in the use of gold have been so little, as compared to the circulating coin and paper in the various countries where the standard is gold, that very little appreciation can have arisen from that cause. And in the second place, the decline of prices would have been much greater than it actually was, if there had existed any serious deficiency of money; for the present fall can almost wholly be accounted for by referring to other causes. I admit that gold must have appreciated a little, but that cannot be much. It should also be remembered that 20 years ago the production of gold was considered to be rather in excess of the demand.

IV. Has it extended to (a) retail prices, (b) wages and other payments for services rendered, (c) land and houses? I am unable to give any information about retail prices and wages, besides that which has been given in the Reports of the Commission on the Depression of Trade.

V. Has the fall resulted in any material prejudice to the commercial or general interests of the world? In so far as it has been occasioned by over-production, undoubtedly. But in so far as it is the result of the extension of railways, it has been highly beneficial. In my opinion, economic progress consists in a continuous fall of prices, while money incomes remain the same or do not decline proportionately.

VI. Do you consider that the countries using the gold standard, or any of them, are suffering from an injurious contraction of the currency which might have been obviated or mitigated by an increase in the supply of gold? This question has been answered, *sub. III.*

VII. To what extent and in what way are prices affected by the quantity of the metal or metals used as standards of value? Only in so far as those metals are a portion of the whole circulating medium. An increase of gold does not operate otherwise on prices than an increase of convertible notes, unrepresented by coin and bullion, or of bank credits. In what way prices are effected? This depends entirely upon circumstances. I am inclined to

* Principles, Ch. vii. † Part iii., Ch. v.

think that a contraction of currency creates a series of depressions in the various branches of industry, and thus gradually produces a general fall of prices and of money wages. But it cannot be said beforehand on what point it will begin to operate. If the contraction were caused by a diminution of the production of gold in Australia, probably the first centre of depression would be in those industries which produce commodities used in Australia. If there were a strong demand for gold brought about by a resumption of specie payments in Russia, the branches of industry working for that country would suffer first of all.

VIII. What is the relation, if any, between the supply or quantity of the precious metals and the fluctuations of credit?

This depends entirely on the way in which the banks of the various countries are managed. They *ought* to be managed in such a way that a drain of bullion does not endanger the convertibility of the notes or the repayment of the deposits. But they *are* not always managed on that principle. Hence no natural relation between the stock of bullion and the fluctuations of credit exists.

IX. Has there been during the last 15 years any important development of the system of cheques, bank credits, bills of exchange, or other means of economising the use of the precious metals?

X. Do you consider that an international agreement could be made for the free coinage of gold and silver as legal tender money at a fixed ratio?

XI. Is it in the power of Governments to maintain such a ratio if agreed upon; and would the practice of the commercial world follow the law?

I do not think there has been.

These questions are very important. Yet I may begin by observing that in this country they are not considered as questions at all. When, nearly 20 years ago, my predecessor at the Bank of the Netherlands, Dr. Meer, in a paper which he read to the Royal Academy of Science, first expounded the new doctrine of bimetallism, we all were a little startled; Dr. Meer being known as belonging to the school of Ricardo and John Stuart Mill, and not much inclined to depart from the old lines in political economy. After considering his arguments, however, we all became converts to his doctrine, which is now generally accepted, and taught in all our colleges and universities. One never hears a dissentient voice. It is considered a mere truism in this country to say that bimetallism, though highly objectionable if applied in a small country, is the best system imaginable if applied, by an international agreement, in a large number of civilized states. We thoroughly believe that it would be a great boon to all nations if this system were adopted by the principal countries of Europe and America. We may be wrong for all that, but I thought it might interest your Commission to know that there is one country, at least, where the doctrine of bimetallism has passed into public opinion. It may also be interesting to mention that it has originated at a time when nobody saw the necessity of its practical application in other countries besides those where it existed. Dr. Meer brought it forward as a mere scientific contribution, never believing, when he did so, that his theory would, within a few years, assume a highly practical character.

Let me briefly review the arguments against bimetallism.

1. Bimetallism, it is said, is contrary to the law of Gresham.

In my opinion it is *based* on the law of Gresham. For the law of Gresham teaches us that people, when they have a choice, always will pay in the depreciated metal, and throw out the other one. This means that if bimetallism were established in Great Britain and Ireland, Germany, the States of the Latin Union, Holland, and the United States of America, any depreciation, either of silver or of gold, as compared to the legal ratio, would lead to an immense demand of the depreciated, a proportionate supply of the appreciated metal; and this demand and supply would continue till the actual ratio were equal to the legal one.

The law of Gresham is an impediment to the proper working of the bimetallic system, so long as that system has only been adopted on a small scale. The demand of Holland, for instance, or even of Germany or France, would never be sufficient to prevent a deviation from the legal ratio, supposing the causes of such a deviation to be very powerful. One particular country, even two or three countries, might be wholly drained of all their gold, and in that case the system would no longer be effective. But all the principal countries in the world *cannot* be drained of all their gold, for

exportation is impossible without importation elsewhere, and if large quantities of gold were accumulated outside the chief centres of civilization, gold would depreciate in those places, and there would be no inducement to export it any longer. The law of Gresham, if I may say so, is the very essence of the new bimetallist doctrine, and it is only because this law has never failed that we may rely on the truth of that doctrine, and feel confident that the system it advocates will work well.

2. The bimetallist doctrine, it is said, is opposed to the first principles of political economy. Prices are regulated by supply and demand, not by international agreement. A treaty between all the countries in the world fixing the relation of value between coffee and wheat would be of no avail; no more can the relation of value between gold and silver be fixed in that manner.

I answer that the law has no influence whatever on the demand for coffee and wheat, on the *relative utility* of those commodities, but that the law has a very strong influence on the utility of the precious metals. No doubt, values are regulated by supply and demand. But the law in this case can so operate on supply and demand as to ensure the maintenance of a certain ratio. By international agreement the *relative utility* of the precious metals may be fixed, and an unvaried relative utility between two commodities implies an unvaried relation of value. If one pound of a certain article is twice as useful as two pounds of another article, the relation of value between those articles will be as 2:1. Hence, it may be said that the bimetallist doctrine is not contradicted by political economy, but is simply a corollary, an inference, from economic principles.

Bimetallists do not propose simply to enact one pound of gold shall be equal to 15½ pounds of silver; but to take such measures as will lead to a permanent relation of value between these metals, by the working of supply and demand.

3. Values, it is said by other people, are regulated by cost of production. So Ricardo has taught us. Therefore, if the relative cost of production is as 20 to 1, the relative value of gold and silver cannot be as 15½ to 1.

I answer, that Ricardo has taught us something else besides; he has taught us that in the majority of cases the costs of production, as regards the different portions of the same commodity, are unequal. The celebrated theory of rent is based on this. From which it follows that it is impossible to account for the price of any article by simply referring to its cost of production; the demand must be considered as well. Suppose 10,000,000 pounds of a commodity can be supplied,

if the price is 10*d.* a pound;

9,000,000	"	"	9 <i>d.</i>
8,000,000	"	"	7 <i>d.</i>
1,000,000	"	"	1 <i>d.</i>

then the price may be either 1 penny or 10 pence a pound; this will wholly depend on the demand.

Now we have seen that under the bimetallic system the two precious metals will be linked together. Hence the value of silver will be raised. This will tend to increase the production of silver up to the point at which it is no longer profitable to increase it any further; and this point will be reached (supposing the ratio to be 15½) when the least productive mines actually worked require an expense of about 60*g* pence per oz. It is quite possible that this increase of production will have the effect of lowering the value of both metals, and, therefore, to render unprofitable the working of certain gold mines which hardly yield any profit under the present circumstances. In other words, it is quite possible that the adoption of the bimetallic system will alter the proportions in which gold and silver are produced. But there is no harm in that; nobody, excepting the owners of gold mines, will be the worse of it. At any rate, it seems evident that the bimetallist doctrine is not contradicted by the cost-of-production principle, if properly understood.

4. It is said, if bimetallism at a fixed ratio is possible, you might fix that ratio at 1:1, or at 1:100, at your pleasure. Clearly, this would be impossible. But then it must also be impossible to maintain a ratio of 1:15½!

I do not believe there is much strength in that objection. Gold and silver are used for other purposes than as coins, and on their relative utility as regards these purposes the law has no influence. Now the demand for gold—I mean the industrial demand—

would enormously increase, if gold were made as cheap as silver; and the demand for silver would enormously increase, if gold were made 100 times as dear as silver. Besides, a ratio of 1:100 would bring the price of silver down to 9 pence an oz., at which price all production would cease, so as to make the article almost disappear from the market; and a ratio of 1:1 would carry it up to 943 an ounce, so as to make it superabundant and render impossible any production of gold. But what does all this prove? Simply that it will be wise to fix the ratio at such a figure, that neither the *production* of any of the metals is unduly stimulated, nor the *industrial demand* either. It matters very little whether the production of silver increases and the production of gold diminishes to a small extent; and the ratio may be fixed at any point between 15 and 20, without any material change being produced in the relative demand for the acts. But it matters a great deal that neither of the metals disappear from the market, and that the demand for neither of them should be encouraged at the expense of the other.

5. An international agreement, it is contended, would not be permanent; it would be made for a certain number of years, and at the end of that period it might not be renewed.

So it might: and, therefore, it will be useful to enlist the support of the principal financial institutions for opposing any desire on the part of the contracting States, not to renew the agreement. Independently of this consideration I have always held that it would be prudent to do so. I do not consider the unlimited coinage of gold and silver a sufficient guarantee for the proper working of the system. In my opinion, it would be wise to impose on all the banks of issue of the contracting States (and perhaps also on the Treasury Department in America) the obligation to purchase gold and silver at fixed prices. The Bank of England, for instance, might be directed to purchase silver at (let me say) 60½ pence an ounce, just at it is now bound by law to purchase gold at 77s. 9d. This would not only tend to dispel all doubts as to the maintenance of the legal ratio, but it would create a strong interest for the maintenance of the whole system. Every bank of issue would be made a national opponent to any measure the effect of which might be a depreciation of silver. And, it may be added, several Governments also, as in Germany and some other countries, the Government shares to a large extent in the bank profits.

But, if the system works well, what motive will arise for departing from it?

I now return to the list of questions.

XII. What would be the effect of such an agreement, if carried out, upon (a) prices, and (b) the production of the precious metals.

and in those where gold is the standard metal.

In the former all prices would fall and, ultimately, all wages, because there would be a rise in the value of the trade dollar, the rupee, &c. This rise would greatly stimulate at first the import trade of those countries, because at the outset prices would still be proportionate to the lower value of the coin, and in this manner the fall would be produced. As to wages, they would not be adjusted, I am afraid, except by means of a strong depression in the export trade and the industries connected with it. It might be a bad time for India, China, &c., but once passed over, a better condition would be arrived at. A country is not benefited either by low or by high prices and wages, but it is benefited by a staple value of its currency.

In the countries where the standard is gold, there would be a temporary enhancement of the prices of certain commodities due to the increased demand for import articles, and the diminished supply of export articles, in India, China, &c. I call it a temporary enhancement, because neither the increase of demand, nor the decrease of supply, would be permanent. After a while both the import and the export trade of Asia would be restored to their previous level.

Whether a rise of prices will ensue in those countries by the effect of other causes it is difficult to prognosticate. Certainly, there will be an increase in the supply of money. Owing to the fall of prices in Asia less coin will be wanted there, and the rise in the price of silver will stimulate the production of that metal. But *in what measure* will the supply of money be increased? Only in such a degree as to prevent any further appre-

ciation of money, or so as to lower its value? And in the latter case, will a small decline prove sufficient or not to check the increase of production of silver and to diminish the already decreasing production of gold? I do not attempt to answer these questions, nor do I think it possible for any one to do so with any degree of accuracy.

Instead of speaking of the future I prefer to add a few observations relating to the past and present. I see by your First Report that some uncertainty exists as to the effect of the fall in the gold value of the rupee on the economic condition of India. I have given some attention to that subject, and wish to say a few words about it.

On page 343 of the Third Report of the Royal Commission appointed to inquire into the Depression of Trade and Industry, you will find a table, laid before the Commission by Mr. Inglis Palgrave, showing the movement per cent. of certain prices. On consulting this paper it appears that the principal export articles of India have been affected as follows:—

	1865-9.	Jan. 1, 1886.
Cotton	100	32
Wheat	100	57
Oils	100	64
Indigo	100	105
Tea	100	81

With the exception of indigo, there is a fall in all these articles, from which I conclude that if the rupee had not declined in value, as measured by gold, a serious fall in the *rates of wages* in India would have been witnessed. Not in India throughout, but in those parts of India which were already provided with canals and railroads when the decline of prices commenced. It would have been impossible for Indian planters to continue their production on the old scale, unless enabled to do so by a fall of wages. A decline of prices, unless compensated by other causes, necessarily entails a decline in the money price of labour, supposing the value of money remains unimpaired.

The fact that the silver-price of labour in India has not changed is often appealed to as a ground for believing that the fall in the value of the rupee is profitable to Indian planters. In my opinion this is a mistake. If the (gold) value of the rupee had not fallen, wages in India would be so much *lower* than they are now, and the position of the planter would be just the same. Instead of saying, as he does, that he profits by the fall of the rupee, the planter would say that he profited by the fall in the price of labour, and to that he would attribute his prosperous condition in spite of the serious decline of cotton, wheat, oils, tea, &c.

Yet it seems to me that we ought to distinguish between the process itself and its consequences. When people speak of the fall of the rupee, it is not always clear what they mean. Do they mean the falling condition, or the fact that a fall *has* taken place? I cannot believe that the Indian planters are at all the better for converting their gold or their bills of exchange on London into rupees at the reduced rate of 1s. 4d. or 1s. 5d. But I believe that the decline in the gold value of the rupee has bridged over or smoothed away a good many difficulties which the falling gold-prices of their produce would undoubtedly have created if the rates of exchange had remained unaltered at 1s. 10d. to 2s. For a reduction in the money rate of wages is always a painful process, not easily resorted to by employers, not easily submitted to by labourers. The necessity of this process has been asserted by the fall of silver, and therefore, *in so far as it has been continuous*, it has rendered some service to India.

If I am not altogether mistaken, this solution of the question is in accordance both with well-established doctrines of political economy, and with the newly observed facts relating to this subject.

XIII. Do you consider an international agreement for bimetallism possible on any other ratio than 15½ to 1?

As international agreement for bimetallism would hardly be possible on any other ratio than 15½. Suppose the ratio were fixed at 18½; this would be to create the necessity for all the States of the Latin Union, Germany, and Holland, to add 20 per cent. in weight to all their silver coins. This would entail an enormous expense. For my own country, especially, the loss would be immense, as we should have to increase, like-

wise, the weight of our silver coins in the colonies. Nobody knows anything about the quantity of these coins, but it must be very large; and no serious idea would ever be entertained of entering into an agreement implying an outlay of money so great as the substitution of these coins by heavier ones would necessitate.

XIV. Failing an international bimetallic agreement, what measures could be adopted by the commercial nations of the world for giving increased stability to the relation between gold and silver?

render its value stable in relation to gold.

XV. It is argued that, in the absence of bimetalism, the effect of any disturbance of the currency is limited to half the currencies of the world, and thereby increased in intensity. Do you consider this view correct; and, if so, do you think the evil a serious one?

XVI. If the effect of such disturbances could be spread over all countries, would greater stability of the standard of value be secured thereby?

cious cause is the issue or contraction of paper money, convertible or unconvertible, unrepresented by coin and bullion. If those issues or contractions are wisely managed, they do no harm; their effect is even beneficial. Suppose a temporary demand for currency should arise in England to the extent of three or four million pounds, then the banks might, during a certain period, increase their loans and discounts, and reduce them afterwards. But when the United States, by the issue of greenbacks, Russia and Austria, by the issue of Government notes, Italy or France, by applying to their banks for large and immoderate advances, which, being granted in notes, produce a drain of bullion from those countries, make the currency of the world redundant, they create much evil. And when after a certain number of years the notes are redeemed, the bank debts repaid, they harm us once more. It may be proved, I believe, that the inflation of 1873 is due in a great measure to the over-issue of paper in France; and perhaps "the serious fall in the value of gold" ascertained by Mr. Stanley Jevons in 1869 was not so much the effect of the Australian and Californian mines as of the American greenbacks, &c.

Of course, nothing can be done in the way of international agreements to render these evils impossible. There will be financial mismanagement so long as the world exists, somewhere. But we can widen the field on which the effect of these evils is spread, and this will be done by bimetalism. It seems to me unnecessary to explain in what manner bimetalism produces this favourable result. It will suffice to quote the well known words used by Mr. Stanley Jevons in his book on money, p. 140:—

"Imagine two reservoirs of water, each subject to independent variations of supply and demand. In the absence of any connecting-pipe, the level of the water in each reservoir will be subject to its own fluctuations only; but if we open a connexion, the water in both will assume a certain mean level, and the effects of any excessive supply or demand will be distributed over the whole area of both reservoirs."

I am not aware that any such measures could be adopted. Steps might be taken tending to raise the value of silver, but nothing except bimetalism will

This view is quite correct, and the evil you speak of is certainly a serious one. The great cause of variations in the purchasing power of money is not so much increase or decrease of production; for those changes, in the majority of cases, are rather limited in amount. The chief and most pernicious

No doubt if a connexion is opened between gold and silver, gold will share in all the variations to which silver alone is subject now; but these variations will be greatly diminished. On the other hand, silver will share in all the variations to which gold alone is liable under the present circumstances, and they are far more numerous and important than is generally admitted. I do not believe very much in a marked scarcity of gold; but I candidly confess that my faith in the stability of gold is not so strong as it was formerly. I fear I have under-rated—and I think the majority of people do still under-rate—the baneful effect of fluctuations in the quantity of notes not represented by coin and bullion. I know that Mr. Fullarton, and other authorities of the school to which he belonged, denied the possibility of an excessive issue of convertible notes; but that is simply a blunder. His argument was that convertible notes, when not wanted in the country where they are issued, are returned to the bank. So they are, indeed, but only to be exchanged for bullion, which bullion, when exported, will increase somewhere the demand for commodities, and thus produce a rise of prices. Let us suppose the Bank of France advances money to the French Treasury to the extent of 1,500 million of francs, in notes. The French currency requiring no increase at that moment, these 1,500 million francs will make money redundant, the rate of exchange on London and other places will rise, and 1,500 million francs in gold will be exported. They may be taken out of the bank, if the bank permits it, and in that case the notes will all come back; the circulation in France, after a short time, will be reduced to its old level. Nevertheless, the supply of gold will have been increased to the full amount of 1,500 million francs.

Whether the notes issued are convertible or unconvertible is quite immaterial; in both cases they will cause a drain of bullion. The question is not whether they are convertible, but whether they are represented by gold. If they are not, their effect must be as has been described.

It is often asked, how will the bimetallic system work, if in one of the contracting States the bank notes are made unconvertible, because issued in too large quantities? I answer, how will the *mono-metallic* system work under those circumstances? A careful examination of the causes which have led to the crisis of 1873 is highly instructive, and nobody who has learned to see in how large a measure the over-issue of paper, chiefly in France, has contributed to that crisis, will be at a loss to explain the depression that followed it.

Of course, if one of the contracting States reverts to the *cours forcé*, it will lend no support to the proper working of the bimetallic system any longer; but if the other States are in sufficient number, the harm will be unimportant, and the effect of the over-issues in the defaulting country on the value of the currency will be less.

These are the considerations which, in reply to your letter, I beg to submit to the judgment of the Commission.

I am, Sir,
Your obedient servant,
N. G. PIERSON.

Geo. H. Murray, Esq.,
Secretary to the
Gold and Silver Commission.

(2.) PROFESSOR ERWIN NASSE, of Bonn.

I. To what do you attribute the fall in the value of silver, as compared with gold, since 1874?

changes in the mint regulations of most civilized States, in which the German Empire took the lead. The States of the European Continent and the United States of America one after the other closed their mints against the free coinage of silver during the 10 years which followed the Franco-German war. Formerly all the silver which came to London from the countries where it was mined could in all these States be converted into legal tender money, and consequently its sale never presented any difficulty. But now, if we except a limited demand for industrial purposes, and for token money, there only remains

The alteration in the relative value of gold and silver is primarily the consequence of

exportation to Eastern Asia. The balance of payments between Eastern Asia on the one side and the European and American States having a gold currency on the other is, therefore, at the present time the point which decides the value of silver.

Among the various events which have limited the coinage of silver and so depressed its value special importance is due to the suspension of the free coinage of silver in France and the other States of the Latin Monetary Union. For in these States not only was it possible to get any quantity of silver coined, but by melting down French gold coins of equal nominal value, a pound of gold could be procured for 15½ pounds of silver at a trifling expense. So long as this operation was possible, that is, so long as there was unlimited

coinage of silver and gold coins circulated in France without any premium, the relative value of gold and silver in general trade could fall but little below the standard of the French monetary law. Even after the Franco-German war the supply of French gold coin was still so large that for several years an exchange of gold coin for silver could have taken place without giving rise to a considerable premium on the 20 franc piece.

Against this enormous contraction of the market for silver it is hardly worth mentioning that the United States resumed the coinage of silver on a limited scale in 1878, that Spain has recently coined a considerable quantity of silver money, and that some few other applications of silver to coinage purposes have taken place in Europe.

To this diminished demand for silver there must be added an increase in the quantity of silver offered in the market.

This has been, in part, of only a transitory nature. The German and Scandinavian Governments offered for sale large quantities of silver derived from coin melted down. The influence of these sales can only be considered as of importance during the years 1876-78, and does not at all explain the present position of prices.

On the other hand the increase in the production of silver seems to be permanent. This would probably, even had there been no change in the mint regulations of several States, have in time caused a certain movement in the relative value of the two precious metals adverse to silver, but that would have been but very slight indeed compared with the movement which set in in 1874.

II. What probability is there of a continuance of the fall? To forecast the future development of the relative value of the two precious metals is more than I can undertake. I confine myself, therefore, to speaking of the main points which are likely to influence this relative value.

First of all the policy of Governments in regard to their coinage will regulate the relative value of the two precious metals. Further steps towards the demonetisation of silver, such as the Repeal of the Bland Bill, the sale of large quantities of silver coin by the Continental States, the restriction or suspension of a silver coinage in British India, would in any case cause a rapid fall in the price of silver to a quite unfathomable degree. The resumption of the free coinage of silver over any considerable part of the world would naturally exert the contrary influence. Were this resumption of the free coinage of silver to take place in States which had a plentiful circulation of gold coin, then the value of gold and silver in the world's trade would approximate to that fixed in the coinage system of these States. This influence would continue so long as gold coin circulated without premium in these States and could be represented by silver as a substitute. So soon as the supply of gold coin approached exhaustion, the influence of the mint regulations of these States on the relative value of the two metals would disappear.

If however the policy of Governments with regard to their coinage remains as it is, then the price of silver will for the future depend, on the one hand, upon the amount of silver produced, and, on the other, upon the balance of payments between countries with a gold currency and those with a silver currency. Amongst the latter the East Indies and China have so prominent a position that, more than all others, they will exercise a preponderating influence. The export of commodities from the East Indies, the extent of the capital transferred thither, the amount of the Government bill sold in London, the requirements of the populations of Eastern Asia either for currency or for hoarding, all these are points which cannot fail to exercise an influence on the price of silver in Europe. All these points, however, are uncertain, and, therefore, so long as they predominate the relative value of gold and silver must continue to fluctuate. A circumstance unfavourable to the price of silver may be found in the fact that in India the hoarding of gold seems to take more and more the place of the hoarding of silver; a favourable circumstance on the other hand is the possibility of a great extension in the circulation of silver coinage throughout the whole of Eastern Asia, owing to increasing trade and further economic development.

III. To what do you attribute the fall in the wholesale prices of many commodities which has been in progress during the last 10 or 12 years?

IV. Has it extended to (a) retail prices, (b) wages and other payments for services rendered, (c) land and houses?

VI. Do you consider that the countries using the gold standard, or any of them, are suffering from an injurious contraction of the currency which might have been obviated or mitigated by an increase in the supply of gold?

VII. To what extent and in what way are prices affected by the quantity of the metal or metals used as standards of value?

VIII. What is the relation, if any, between the supply or quantity of the precious metals and the fluctuations of credit?

IX. Has there been during the last 15 years any important development of the system of cheques, bank credits, bills of exchange, or other means economising the use of the precious metals?

The considerable fall in wholesale prices of most commodities during the last 12 or 15 years is *partly* due to the inevitable reaction from the exaggerated rise in prices during the years 1871-3. After periods of excessive speculation, of too great activity in production, and of high prices, times of industrial depression and low prices necessarily follow.

The movement in prices, however, during the last seven or eight years can certainly not be explained by this. There must be another cause for the great fall of late years.

The phenomenon must have arisen from circumstances which either were connected with the condition

of money, or influenced the supply of, or demand for, commodities; in other words, it will have to be sought for either on the money side or on the commodities side.

Without wishing wholly to deny the influence of the former, still I hold that this fall of prices is *chiefly* the result of *facilitated production* of commodities. The grounds which lead me to this conclusion are the following:—

(1.) In the last 20 years a very great decrease in the cost of production of nearly all important commodities has set in, and this of necessity found its expression in the prices of the commodities, as it was not accompanied by corresponding alterations in the cost of the production of money. The chief cause of the largely facilitated production is to be sought in the largely increased area, over which well-organised agricultural and industrial operations have extended. It is this most important advance which has given a peculiar character to the economic development of recent times. The interior of large continents has been opened up to the traffic of the world by railways, and the natural productive powers of large countries which hitherto were out of the reach of the commercial and industrial nations of the world have thus become attainable and available. The American Civil War, the European wars of 1866, 1870-1, and 1877, having for some time retarded progress in this direction, so much more rapid became progress when these hindrances were removed. In an exceptionally rapid course during the peaceful times of the last 10 years the intelligence and growing capital of the commercial and industrial nations have been applied to the development of these newly opened gifts of nature, and to the application of the labour of less civilized countries to their utilization. Consequently not only European countries formerly shut out from the commerce of the world, but also the interior portions of America, Russia, and India can now deliver at the seaport a whole mass of economic commodities with but little trouble or expense. To this we must add the consideration that transport by sea from all parts of the world to Europe has been facilitated and consequently cheapened in a manner hitherto unheard of and unexpected, by a series of improvements in sea transport. Closely connected with these advances, which are peculiar to quite recent times, there is an unceasing advance in technical skill and economic knowledge. Special progress has been made since the year 1870 in many important industries, such as the working of iron and steel, the preparation of sugar and paper. All this must have depressed the price of nearly all commodities, provided that gold remained a steady standard of value. All this progress, especially the cheapening of transport by sea, and the increase in the area under cultivation has continued even during the last six or seven years; and besides this, over a large part of Europe there have been several exceptionally good harvests.

Against this view it has been urged, that in former times also, namely during the period from 1850 to 1873, great progress in production was made without any corresponding fall in the price of commodities. I will leave it an open point whether in manufacturing industries the advance made during that period was so great as during the last 15 years; but in the production of raw material for food and clothing, in the carrying

trade, and in commerce, it was undoubtedly not so great. Formerly, improvements in manufacture were in their effects upon prices counteracted by the increasing difficulty in supplying the necessary raw material for the use of a rapidly increasing population. A prominent German economist expressed, as the result of careful examination of the change of prices during the present century, an opinion that goods tended to become cheaper in proportion to the amount of manufacturing labour they required, and that they tended to rise in price when the price of the raw material constituted the greater part of the cost of production. At present, however, facilities for production and fall of prices are more remarkable in the production of raw material than in manufacturing. A fall in the price of raw material must, however, exercise a much greater influence on all other prices than a fall in the price of manufacture does. A further difference between these two periods will be found in the fact that during the period 1850-60 perhaps the greatest diminution in the cost of production took place in regard to gold. Although usually changes in the cost of production of the precious metals are slow to exercise any influence on their value, still the revolution caused by the Californian and Australian discoveries was so great that the enormously increased production of gold could not remain without influence as a counter-agent to the tendencies of the general movement of prices.

(2.) In support of the above explanation of the fall in the price of commodities, another circumstance should be mentioned. Wages have not, or at all events not in equal measure, fallen with the wholesale price of commodities. It is true that wages could not everywhere be maintained at the height which they suddenly attained during the period of stimulated speculation which followed the Franco-German war in many parts of Europe and especially in Germany. But compared with either 20 years ago, or 10 years ago, wages have on the whole hardly fallen; rather have they in many cases visibly risen. This contrast in the movement of wholesale prices and wages was, perhaps, more marked in Germany and many other parts of the Continent of Europe than in Great Britain. The industry and trade of Great Britain has of late years lost from various causes many advantages which it formerly possessed over its continental rivals. The difference between English and German wages is slowly diminishing. The latter are approximating more and more to the former. To this, in my opinion, must be attributed the pressure on the English labour-market, which has lately been so marked. In Germany, on the contrary, the Prussian Minister of Agriculture maintained in the recent debates on the new Corp Bill in the German Reichstag, without being contradicted, that agricultural wages had been on the same level since the first years after the Franco-German war. Again, the Factory Inspectors state, in their annual report for 1885 (p. 109, official edition), "Wages have, on the whole, remained at their former height; in some single cases, indeed, they have risen"; and in their report for 1886 (p. 74 of the official edition), "Wages remained, on the whole, at their former height; often, too, they experienced a not inconsiderable rise. A fall in wages has only taken place in isolated cases. But in some cases workmen suffered, because industrial establishments were compelled in consequence of unfavourable conjunctures, either to shorten the hours of labour or to suspend their work entirely." In conclusion, the remark is made, "Instead of the alleged lowering of the price of labour we have to report, taking a wide extent, rather a rise in wages." Similarly, by the same officials, in the five previous years more frequent mention is made of a rise in wages than of a fall. Also, most reports on large industrial undertakings, especially those on mining and iron industries, maintain that since 1878-9 the money wages of the workmen have risen. It would lead us too far to bring together here a collection of statistics on the movement of wages in Germany. But I believe that those who have latterly followed this question in Germany, will be disposed to assent to what I have stated. The same remark will probably hold good in regard to Switzerland and Italy.

This difference between the movement of the price of commodities and the movement of the price of labour, which has now lasted through a series of years, is hard to explain if we attribute the fall in price of the former to circumstances connected with the condition of money. Want of money must in the end make itself felt in all relative prices. The difference requires no explanation if

the diminished quantity of labour required for the production of commodities is the cause of their fall in price.

(3.) Were contraction of the currency the chief cause of the fall in the price of commodities, then in countries which have a gold currency this want must express itself by *high rates of discount*.

All States with a gold currency are States with high economic development. But in these any contraction or surplus of the means of payment soon converts itself into a demand or offering of short loans, and exercises an influence on the rate of discount. The persons, who need means of payment, draw what they require from small or large banks with which they are connected, and deposit their surplus with their banks. Even the very smallest business, in which there can be any question of a fluctuating requirement of the means of payment, is now wont to be in connexion with some savings bank, or bank, or some similar loan society. To these it remits all its available cash in order to earn all possible interest on it, and to avoid the keeping of money, and from these, in case of need, it draws ready money, either as a repayment of deposit or as a loan. The small banking establishments, again, are in close connexion with the great banks as common reservoirs, and pay into them their superfluous cash, or obtain cash from them when they require any large quantity of the means of payment. Thus in the far west of the United States a scarcity of money leads to an increase in bills discounted, loans, &c. in the New York banks; the autumnal demand for money in Scotland is supplied from the Bank of England; in Germany, on the dates when most payments are made, about the middle and beginning of the year the amount of bills discounted by the German Imperial Bank, and of notes issued by it, increases quite regularly. A deficiency of the means of payment must therefore make itself felt in the great banks, and force them to resort to extraordinary raising of the rate of discount, in order to protect their reserves of ready money. In the same way the forwarding of gold which reaches any country from abroad, or is taken from it in order to adjust the international balance of trade, shows itself by an addition to or subtraction from the bank reserves, and consequently this international flow and ebb of gold does not immediately influence the price of commodities, but affects in the first instance the rates of discount, and through them the price of commodities.

On examining the fluctuation of cash reserves and of discount rates of the great banks since 1876 and comparing them with former times, no disturbing circumstance can be discovered which might be attributed to any exceptional scarcity of gold. The gold reserves of the most important banks and treasuries in all the commercial and industrial States rose according to Soetbeer's estimates, from 1,035,800 kg., or about 145 million pounds sterling, in the year 1877, to 1,806,500 kg., or about 252 million pounds sterling, in the year 1885. The average rate of discount for the last 10 years, in nearly all large European banks, has been lower than in former times. Even if this circumstance is not to be attributed to an exceptional surplus of gold, but is due to other causes, still, at any rate, it does not, on the other hand, indicate any scarcity of gold. It is true that during the last 10 years the banks which pay in gold have been repeatedly obliged to protect their stock of gold by raising the rate of discount, but that occurred not unfrequently in former times also, and in the last 10 years milder measures than formerly were sufficient for the attainment of this end. The Bank of England during the years 1875-1886 never raised its discount to 6 per cent., while this rate of interest was reached in seven years during the period 1863-74, and in four years between 1851 and 1862. The Bank of France cannot be brought into the comparison, because it escapes from any unpleasant demand for gold not by raising the rate of discount, but by paying in silver and giving out gold only at a premium. The Imperial German Bank, on the contrary, pays in gold, and is in a peculiarly delicate position, because it holds its reserve to a great extent in silver. Nevertheless there were only four years during the period 1875 to 1886 in which the rate of discount reached 6 per cent. The Prussian Bank, from which the Imperial Bank took its rise, transacted all its business in silver, and had to raise the rate to 6 per cent. in six years of the period from 1863 to 1874. I admit that during the last-named period, war requirements twice contributed to a specially increased demand for money in Germany. During 1875-86, however, occurred the extraordinarily increased demand for gold, caused by the re-establishment of the

gold standard in the United States of America and in Italy, and by certain minor changes in the mint regulations of the commercial and industrial nations. In spite of this no perceptible disturbance of the European money market has arisen during this period, and this I regard as the result, not the cause, of the low position of prices which tended to compensate for the scarcity of circulating media. I also regard it as a sign, firstly, of the quantity of the stock of gold which is able to stand so great and extraordinary a demand for gold; and, secondly, the elasticity of credit, which during the last 10 years has uninterruptedly developed itself. The very slightest shock to credit would have caused far greater disturbance in the money market than the demand for 100 millions of gold for America and Italy. On this subject, however, I shall under the next head submit some further remarks.

(4.) By commercial and industrial nations gold is in these days required, apart from its uses in manufactures, for two purposes only, firstly, for such payments in home trade as are too large to be made in silver coin, and too small to be made in bank notes, cheques, and the like; and, secondly, for the settlement of the international balance of trade. With good organisation of banking and credit systems, the requirements for these two purposes are reduced to a minimum, compared with the bulk of the transactions which both in home and foreign trade are adjusted without recourse to gold. This is not the place to describe the system of payment which depends on credit. Its different incidents can all be reduced to the fact that in place of cash payments claims are transferred, that is, debts circulate in the place of gold and silver money, and at last are set off the one against the other. But, although the demand for gold for these two purposes is insignificant compared with the bulk of the transactions among the industrial and commercial nations, still it is subject to fluctuations, and, therefore, every country requires a reserve of gold for temporarily increasing the requirements for small payments, and for payments abroad. This cash reserve is to be found principally in the European States in the great central banks which constitute the basis of the whole edifice of credit.

Now, it is not necessary that this reserve should always preserve an equal proportion to the bulk of the transactions, which are effected without recourse to gold coin. On the contrary, the money transactions can expand largely, whilst the gold reserve of the country remains the same, and as a rule there is a tendency to counteract any scarcity of gold by improved or increased application of methods of payment based on credit, and by greater economy in reserves of money which are lying idle. I will adduce a few examples of this tendency. Is not the difference in the amount of money transactions in different periods of the year very great? Nearly everywhere times of commercial dullness alternate with times of brisk exchange of commodities and large and frequent payments. In the country, in which I live, the difference in the need of media of payment at different seasons of the year is perhaps exceptionally great. But this regular requirement is fulfilled without any great difficulty by the Imperial Bank and some other small banks issuing more notes some weeks and allowing a small amount of their cash reserve to enter into circulation. The amount of the bills discounted by them increases, and private depositors withdraw a corresponding amount. Consequently disturbances in the commodity market do not arise. No trace can be seen of any periodical change in the prices of commodities corresponding to this change in the demand for money. As a rule, not even a rise in the rate of discount takes place in consequence of this periodical demand. In the years 1879, 1881, 1883, 1884, 1885, 1886, and the note circulation of the Imperial bank in each case, reached its maximum on the 31st of December, immediately before the great increase in payments at the beginning of the new year. But only in one of these years, 1886, did the maximum of the rate of discount coincide with this increased demand for money. In England the maximum of home requirements for media of payment falls, as far as I know, in the autumn, and the money market is more disturbed by it than is the case in Germany. But even there not a word has been uttered of any periodical fluctuation in the price of commodities, and; moreover, its influence on the rate of discount could easily be obviated were the Bank of England permitted to issue 1*l.* notes, and were they made legal tender throughout the United Kingdom. In that case, too, credit would without any

difficulty be able to undertake the equalisation of the fluctuating demand for media of payment.

This tendency and this capability of credit is visible also in non-periodical or irregular fluctuations of the demand for means of payment. As a rule, credit is developed proportionately with business, and gives its aid with wonderful elasticity towards the making of payments and economising of metallic money.

Now, in this way it appears to me that two important historical facts find their explanation. First, the great fluctuations in the annual production of the precious metals since the discovery of America have on two occasions only, exercised a marked influence on the value of the precious metals, namely, in the second half of the 16th century, and during the period from 1850-73. In both cases a total revolution of the conditions of production, in the 16th century of silver, and in 1848-51 of gold, took place. All other changes in the conditions of production have had no clear or recognizable effect upon the prices of commodities. Second, in the last three decades before the discovery of the Californian and Australian goldfields, in spite of the diminished production of silver and the great increase of population, and of the circulation of money, still the prices of commodities in the world's markets fell either not at all, or very slightly, and, on the contrary, over the greater part of the European continent a very considerable rise in the prices of nearly all commodities and of wages took place. The growing economy in the use of gold and silver money through developing credit counterbalanced the enormous and ever increasing demand for media of payment.

It is true that opposite views have been expressed. It has been maintained that the diminution of the American output of silver which occurred in the third decade of this century was the cause of the fall in price of many commodities which took place during that period. Some have, indeed, maintained the view that during the whole of the first half of this century in consequence of an insufficient production of the precious metals, a gradual rise in their value and a fall in the money value of all commodities arose.

But the considerable fall in the money value of many commodities after the year 1820 is sufficiently explained by the diminution of the cost of their production, which began after the great French wars, and next by a succession of good harvests following a series of indifferent harvests during the first 20 years of this century. During the war, production was on all sides interrupted and oppressed with various burdens, after the war not only did these hindrances disappear, but there also commenced a period of the most marvellous progress in production (*vide* Tooke, History of Prices, Vol. II., p. 346 onwards). A general fall of all money values during the whole of the first half of the century I am not disposed to admit, for in by far the greater part of Europe, in all inland districts, a considerable rise of prices can be traced during the period from 1800 to 1850. English political economists who maintain the contrary, have nearly always looked upon England or London as the centre of the world's commerce, and are apt to forget the gradual levelling of the difference of money value in Europe which resulted from the improvement of all means of communication by the growing traffic.

The tendency of credit to counterbalance a growing deficiency of metallic money, has also been remarkable during the last 12 years. In many countries a considerable progress in economising the use of gold has taken place during this period (Question 9).

I confine myself to producing some proofs of this progress from Germany; as regards other countries others will be better able to judge.

In Germany a system of deposit accounts began at the Imperial Bank in 1876. Since then the amount of deposits in the Imperial Bank has grown to more than 350 million marks (17½ million pounds sterling). Of these deposits the owners or depositors can at any time avail themselves by means of cheques, and make their payments throughout the whole empire without any expense. Whilst in this way these deposits furnish the ready money reserves for the depositors, they are not kept by the Imperial Bank in the form of ready money. The bank utilizes them not only according to usual banking principles; but also the reserve of cash which the bank necessarily holds for sundry repayments of deposits, can, according to the wording of the bank law be reckoned in with its other cash reserve and the total sum regarded as cover for notes. The bank law does not trouble itself about the cover for deposits, but

regards the whole cash reserve as destined only for cover for notes. With the increased total amount of its cash reserve, the bank consequently increases the amount of notes which it can issue without any impost, although its cash reserve has to serve as cover both for notes and deposits. This measure of the Imperial Bank has, moreover, still further contributed to increase the custom of making payments by means of cheques, and to extend it into wider circles. There have sprung up in the great centres of commerce clearing-houses for cheques, which ten years ago were quite unknown in Germany. To this must be added the progress made in the absorption and utilization of the very smallest reserves of money. The savings banks have been perfected during the last few years, and above all, in the country parts they have been further extended. There are now scarcely any peasants left in Germany who keep ready money on hand to any considerable amount, and in families in which a few decades ago every child possessed his money box filled with gold and silver pieces, now every child has his savings bank book.

From all that has been set forth above it will be understood that I am disposed to trace the cause of the fall in the price of commodities, less to the altered condition of money than to the facilitated production of commodities.

V. Has the fall resulted in any material prejudice to the commercial or general interests of the world?

If, as I have striven to prove, the general fall of the price of commodities in wholesale trade chiefly is caused by economy in the labour required for the production of commodities, or, what is the same thing, by greater efficiency of human labour, then this circumstance must in the long run prove most highly beneficial to all human interests. An advance has been made which is thoroughly analogous to all other economic improvements, discoveries, and inventions. For all economic improvements consist, as has often been said, in the last instance, in economy of labour, or in the increased superiority of man over the outer world. Especially to manual labourers who have no property must this circumstance prove of benefit, and as a matter of fact it has improved their position in the most important industrial and commercial nations. The rate of wages has fallen either not at all or not in the same ratio as the price of food and clothing of the labourer. The share of the national income, on the contrary, which the propertied classes receive in the form of rent and interest, has become smaller. For the opening up of extensive and fertile tracts of land in the interior of the continents of the northern hemisphere, and the lessening of the cost of transport, have depressed the rents in the countries of ancient cultivation and dense population; and, moreover, interest on capital has fallen under the influence of universal peace and increasing wealth. In this way there is being brought about a great transfer of the income of the nation, which the philanthropist can but greet with joy. But even the most desirable economic development must, if very rapid and sudden, be accompanied by losses, and these losses may have such an extent that an industrial depression succeeds, and thus a period of great economic progress may be found to be a period of widely spread calamity. For every sudden shifting in production and consumption necessarily leads to the temporary throwing out of employ of capital and workmen. An altered distribution of the national income, even when in itself of a happy nature, and when it does not on the whole decrease the national income, must always bring about an alteration in the direction of consumption. In the same way an unexpected fall in prices causes a whole mass of undertakings, which were founded in reliance upon high prices, to become unprofitable. Frequent and unexpected losses, moreover, occurring in well planned undertakings, deter people from new ventures, and produce a feeling of insecurity, such as during the last few years has taken hold of the whole industrial world. A slower alteration of prices would, therefore, in my opinion, have been better.

It is very probable that a continuance of the extraordinary production of gold, such as that which took place in the years 1850-1860, or a free coining in all European States of the increasing out-put of silver, would have exerted a counteracting influence to the depression of prices. Perhaps in that case the prices of commodities would have fallen somewhat less, and wages would have risen somewhat higher, and thus similarly favourable results could have been gained for the working classes, with a higher level of prices, and without so great an industrial depression. But it seems to me

more probable that there would have been, from time to time, as was the case from 1850-73, periods of over-stimulated enterprise and over-speculation, which would have raised prices for a certain time, without in the long run preventing their fall; for such times are followed by commercial crises and the sudden shattering of credit, in which the prices of commodities often fall still lower than they had previously risen. The unstable progress of production, moreover, caused by over speculation, and the consequent depression is so great an evil for the whole economic and moral life of the people, and under it the labourers suffer so heavily that I would not exchange it for the industrial depression and losses under which, in these latter years, the commercial and industrial people of Europe have suffered.

X. Do you consider that an international agreement could be made for the free coining of gold and silver as legal tender money at a fixed ratio?

An international agreement for the purpose of the free coining of gold and silver as legal tender money

at a fixed ratio I should regard as a happy circumstance, if its punctual observance and its continuance were assured. Whether these two great aims can be permanently secured, seems to me in the highest degree uncertain, and therefore I cannot advocate any such international arrangement.

I maintain that a growing preference for the use of gold for purposes of money clearly manifests itself among all industrial and commercial peoples. When once people have learnt to recognise the charm of gold coins they will not do without them. The substitution of gold for silver coins in France, between 1850 and 1860, caused scarcely any opposition in public opinion, but when, from 1871 to 1874, the supplanting of gold coin by silver began, opinion was unanimous that that was not to be borne. At present the circulation of the old silver coins, to which in former times people took no objection, is everywhere impeded. The silver dollars, the 5-franc pieces, the German thalers, are continually collecting in the coffers of the central banks, or of the State, notwithstanding all the trouble that is taken in all these countries to put them in circulation. Newly coined silver pieces would certainly meet with the same fate as the old ones. Every new coining would increase the reserve of silver in the central banks and treasuries, if these had not the right to refuse them. That, however, would be a very dangerous condition for the money and credit system of a country such as England, Germany, or France, if the cash reserve in their central banks, the only available cash reserve of the country, consisted wholly or mainly in a money reserve, the value of which partly rested on the fragile basis of an international agreement. In order to avoid so dangerous a position, the bank authorities would have to take precautions, by all manner of means, to drive away silver and to attract gold, and it is probable that the State treasuries would support them in these endeavours, as is indeed now the case in France, Germany, and other countries. I apprehend a secret struggle for gold would at once begin between the banks and the State authorities, so soon as the date of the international agreement were decided. For what guarantees would people have for the continued and honourable fulfilment of the agreement on the part of all the contracting States? Even in times of peace it would be hard to prevent obstructions to the free coining of silver, still less is it possible to say what would happen in time of war, when all agreements between the combatant States are annulled. It is maintained that the well understood interest of all the States would ensure the punctual carrying out of the agreement, and make its repudiation impossible. But do nations really allow themselves in their international relations always to be guided by their well understood interests, and not very often by prejudices or national hatred? Do we not often see a people doing itself an injury in the hope of imposing a still greater injury on another nation? At the outset the silver would be very unequally divided between the contracting States; trade would make, later on, a still more unequal distribution, and hence the different States would have an unequal interest in the maintenance of the agreement. All this would, in my opinion, readily lead at first to complaints of disloyal carrying out of the agreement, and of over-reaching by foreign nations, and, finally, to an open repudiation of the convention. Those States which had taken silver in larger quantity into their circulation, or into the cash reserves of their central banks, would be severely injured in the order of their money system.

XI. Is it in the power of Governments to maintain such a ratio if agreed upon; and would the practice of the commercial world follow the law?

Should the agreement be concluded between the most important commercial and industrial States, and actually be carried out, then the fixed relation of gold and silver would also necessarily rule in the commercial world, because everybody by the coining of silver and the melting down of a corresponding amount of gold coins could procure gold for silver at the agreed relative value. Only the loss by melting, the cost of coining, and the loss of interest which would be entailed by these operations could give to gold a trade value a trifle above that fixed by the agreement. As soon, however, as it grew impossible to withdraw gold pieces from circulation for melting down without expense in any quantity, then the relative value of the two metals would diverge from that fixed by the agreement. Gold coins would circulate at a premium, and the intention of the international treaty would be frustrated.

The possibility of some such development cannot in principle be denied; whether and when it would operate would depend—

- (1.) On the demand for gold, either for hoarding or for currency, in the countries which at present have only a very small circulation of gold money or no gold money at all. How much gold would for these purposes disappear from the circulation of the States which concluded the agreement, and have at present a sufficient circulation of gold money? The latter are only a small part of the whole world which makes use of the precious metals. In the vast districts in which silver or paper form the ruling medium of payment, people would certainly be glad to strengthen their supply of gold, either in order to have a convenient circulating medium, or for hoarding purposes. At present gold is kept in the well-to-do States with a gold currency by means of their monetary laws. After the conclusion of the agreement it could be replaced by silver in these countries. It cannot with exactitude be forecast how it would then be divided in the world.
- (2.) On the use of gold for industrial purposes. How important this use is, late researches have sufficiently proved.
- (3.) On the relative production of the two precious metals. A further reduction of gold production, a further increase of silver production, could in the course of time cause gold coins to come into circulation less and less frequently, silver coins more and more plentifully, so that in order to retain the former, a premium above their legal value would have to be paid. The relative amount of the silver and gold produced will be greatly influenced by the relative value of the two precious metals that may be fixed in the international bimetallic agreement. The rate of 1:15½ must stimulate the production of silver more than one of 1:20.

XII. What would be the effect of such an agreement, if carried out, upon (a) prices, and (b) the production of the precious metals?

An international bimetallic agreement would, in my opinion, have a tendency to raise prices. In this respect it seems to me that the immediate increase of the metallic legal tender money in the industrial and commercial States would be of far less moment (for it could operate only very slowly) than the moral effect which this proceeding would exert on the reviving of speculation. I fear, indeed, that the conclusion of the agreement would, unless political disturbances intervened, be the signal for a period of exaggerated commercial activity and over-speculation, which would end in a crisis of trade and credit. A rise in prices thus induced would be only transient. To what extent a lasting rise in prices would ensue, cannot, in my opinion, be predicted with any exactness. I believe, however, on the grounds I have stated, that the influence on the raising of prices would, in the long run, be inconsiderable.

XIII. Do you consider an international agreement for bimetallicism possible on any other ratio than 15½ to 1?

A bimetallic agreement on the basis of a ratio of 1:20, would have many less considerations against it, and much more prospect of permanence than one on the basis of a ratio of 1:15½.

A ratio of 1:20 would cause less disturbance in the commercial relations between gold and silver currency countries. For people have now for many years been accustomed to a similar relative value in the trade of these countries. Now a rapid rise of the Indian exchange to the relative value of 1:15½ would produce a disturbance similar to that caused at the

time of the sinking to 1:20. The wildest speculations on the rise in price of silver and on alterations in the price of commodities would be the consequence of any such artificial raising of the price of silver within a short space.

With a ratio of 1:20 there would be less apprehension of any considerable stimulus to silver production, and in case of the ceasing of the agreement the fall of the price of silver would not be so severe. The contracting States would therefore run much less risk with this relative value than with one of 1:15½. Throughout the whole world the want of confidence in the maintenance of the silver value fixed by the agreement would be much less if something like the present relative value were agreed upon, than if the value of silver were again artificially screwed up. The more general the confidence felt in the maintenance of the silver value agreed upon, the less would be the weight of the arguments adduced against the bimetallic agreement.

It is true some of the contracting States would, with a ratio of 1:20, not obtain certain advantages which would come to them with a relative value of 1:15½.

If the ratio of 1:15½ were accepted, the United States of America would have the advantage of recoining their silver dollars, so far as they are in the possession of the Treasury, with a considerable gain. For they were coined at the ratio of 1:16. The silver dollars which were in circulation would be melted down by private persons at a profit. That the United States would choose the other plan and have its gold dollars made more heavy in order to attain the relative value of 1:15½, seems on various grounds, and particularly from the cost of the operation, quite improbable. Thus it would come to pass that the only State which, untroubled by the fall in price of silver, has gone on coining silver and drawn great profit by it, would then obtain a further financial gain from the international agreement. The United States would further be in the enviable position of entering into the Convention without any stock of silver currency, with an exclusive gold circulation, and be less burdened with a dead weight of silver coins than other States, as, for instance, Germany, which has made great financial sacrifices in order to diminish its stock of silver money. The injustice of this result might possibly impede the conclusion of the agreement on the ratio of 1:15½.

Germany, the Netherlands, and the States of the Latin Monetary Union would, if a ratio of 1:20 were decided upon, have to renounce all hope of seeing their 5-franc pieces and thalers, which, owing to the depreciation of silver have been reduced to the position of token-money, once more converted into coins of full value. Germany, however, could easily give up this advantage, for the amount of its thalers is so small that their retention as token-money can cause no serious apprehension; France, Italy, Belgium, and the Netherlands, are all, in consequence of the large amount of their silver coins, so much interested in the upholding of the present value of silver, that they would hardly refuse an agreement on the basis of a relative value of 1:20, especially if they were able to place confidence in the permanence of such an agreement, and could not obtain the still greater advantage of a convention on the basis of 1:15½.

XIV. Failing an international bimetallic agreement, what measures could be adopted by the commercial nations of the world for giving increased stability to the relation between gold and silver?

The means which, apart from an international bimetallic agreement, might be taken in order to give greater fixity to the relative value of gold and silver, might have for their object either to assure a greater application of the use of silver, or to induce a greater economy in the use of gold.

A somewhat larger employment of silver for coining purposes could be secured if the commercial and industrial nations agree to issue no small paper money and no small gold coins.

People will be slow to give up the convenience of a gold coin or paper note of the amount of 10 shillings, francs, or marks, but smaller gold pieces or paper notes could be very well withdrawn from circulation. In England, it is true, no new application for silver would be created by this, but in the States of the Latin Union, in Germany, and in the United States, the silver coins which are lying in the banks or treasuries, would partly enter into circulation. The money market would

by this freeing of the banks from silver coin become somewhat less sensitive; but as regards the price of silver, there would be very little help given by it. Of greater importance would be the entrance of Austro-Hungary and Russia into such a convention; but this can scarcely be counted upon. Every step by which the two last-named States would get rid partly or entirely of their depreciated paper currency, would be favourable to the value of silver. For neither Russia nor Austria, it seems to me, as far as I am able to judge, can substitute a gold currency for their paper money. If they wish to have a metallic currency they can only have a silver currency. At present there is no prospect of either Austria or Russia adopting a silver currency. In the course of time, however, people in both countries will perhaps begin to see that silver is still a better medium of payment than a depreciated paper money.

Greater economy in the use of gold for mint purposes could be attained, in my opinion, by an extension of the circulation of bank notes.

In England, Germany, and some other countries, the central banks could issue notes of small amount down to 1*l*. If the banks held a reserve of gold equal to a part—say half the amount of the small notes in circulation—the metallic basis of the whole money system would not be weakened by such an issue, but strengthened. For the demands made on the increased cash reserve of the banks would be smaller instead of greater. The inland drain of gold would either disappear, or at any rate become less and occur less frequently, if the banks, in all cases in which an increase of small payments or a crisis in credit necessitated a corresponding increase of currency for small payments could pay out small bank notes instead of gold. For the exportation of gold a larger cash reserve would be available, and hence a rise of the discount rate in order to protect the reserve would be less often required. In Great Britain and Ireland a further economy of gold could be made if the notes of the Bank of England were universally received throughout the whole United Kingdom. The periodical flow of gold to Scotland could by that means be avoided. The United States of America have more than any other country the opportunity of introducing economy in the use of gold by improvements in the issue of bank notes and paper money. Were they to determine upon the foundation of a central bank, and to entrust to it the cash reserves of the Treasury as well as to allow a certain freedom in the issue of notes, their currency would gain a greater elasticity more suited to its varying needs. Thus, it seems to me, many irregularities of the American money market would be obviated, which now arise from the storing up of gold in the Treasury at Washington, and from the varying needs of American trade for media of payment.

XV. It is argued that, in the absence of bimetallism, the effect of any disturbance of the currency is limited to half the currencies of the world, and thereby increased in intensity. Do you consider this view correct; and, if so, do you think the evil a serious one?

XVI. If the effect of such disturbances could be spread over all countries, would greater stability of the standard of value be secured thereby?

It seems to me not unreasonable to suppose that the effect of any disturbance in currency, in the absence of bimetallism, is limited to half the currencies of the world, and that consequently when great disturbances arise, the money market may be more intensely affected than would be the case were

the bimetallic system universally introduced. Much weight, however, I would not attribute to this circumstance. The area of the gold currency comprises nearly all the commercial and industrial nations of the world, and as their currency is based on highly developed credit, its elasticity is so considerable that disturbances in the metallic circulation of one country have only a very small influence on all the rest. This appears to me to be proved by the experience of the last few decades. For the last thirty years, gold has been the international medium of payment between the most important commercial nations, and greater disturbances in the circulation of gold money than have taken place in the last thirty years can scarcely occur. The suspension of cash payments in the United States, in 1861, in Italy in 1866, in France in 1870-71; the adoption of a gold currency by Germany and Scandinavia; the resumption of cash payments in France, Italy, and the United States; one would have thought that every one of these events must have shaken the money market in the other commercial States, and yet in every case the only result of these events was a moderate rise in the rate of discount. Every crisis which shakes credit, such as that which occurred in the Autumn of 1857, or that in May 1866, spreads much more quickly and in a more destructive manner throughout all countries of the whole world, whether they have a gold, silver, or paper currency, than any one of the so-called disturbances of the metallic circulation. Against such crises of credit which arise from over speculation and exaggerated commercial and industrial activity, an important means of protection is, in my opinion, the extension of the gold currency in commercial States. For during a period of exaggerated and unsound rise of prices and speculation the cash reserves gradually disappear from the banks. With a gold circulation this drain will, as a rule, be quicker and more powerful than with a bimetallic currency. In the latter case the banks can meet the drain of cash by always making their payments in the less demanded metal. With a gold currency the banks have not got this means of help. Moreover, a gold drain is likely to have more intensity than a silver drain, because, in these later times, gold is the precious metal most in demand. The rapid drain of their cash reserves compels the banks at an earlier period to meet an unsound rise of prices by a rise of discount, and thus it prevents the evil from reaching the height which creates a destructive crisis. I do not then deny that the money market, or to speak more precisely the loan market, would gain greater stability with bimetallism than with a gold currency, but I do not regard this an undoubted gain, for I hold the greater sensitiveness of the money market with a gold currency to be a valuable safeguard against unsound and unstable rise of prices and the crises which are its sequel. A gold currency exercises the same wholesome and correcting influence, which England by Peel's Act, and other nations by similar restrictions of free movement in the conduct of their central banks, have sought to provide.

ERWIN NASSE

Bonn, October 1887.

(3.) Professor LEXIS, of Göttingen.

I. To what do you attribute the fall in the value of silver, as compared with gold, since 1874?

The fall in the value of silver is beyond doubt the consequence of the coincidence of the various causes which were enumerated in the Report of the English Silver Committee of 1876. Two of these causes have been but transitory in their working, viz., the unwonted increase of supply caused by the silver thrown on the market by Germany up to 1879, and, on the other side, the unwonted diminution in the export of silver to India which has continued for some years. We must regard as permanent causes of the depreciation, firstly, the almost continuous increase in the production of silver for the last 20 years, which latterly amounts to more than double the annual average of the years 1866-1870, and secondly, the diminished use of silver in consequence of its exclusion from the coinage system of several important countries. This last fact, however, has a far greater importance than all other causes of silver depreciation together, for if it were possible, as formerly, to have silver freely coined in Paris, Brussels, Berlin, and elsewhere, and so to have an unlimited exchange for money of generally recognised value, then an increase in the supply of silver would simply cause an increase in the coinage of silver money, and consequently the influence of the increase in supply would be more or less perfectly counteracted. It was, besides, of the most decisive importance that the States of the Latin Union by limiting and finally stopping their coinage of silver completely set aside the action of the machinery of their double currency, which had up to that time served to keep the relative value of gold and silver approximately stable. Before then silver had always been able to find in France, Belgium, and Italy not only a market that was constantly open but also a fixed price in francs; in other words, any quantity of silver could be changed according to a fixed scale into a money which was legal tender all over a large and rich area; and moreover, even outside this area it had no depreciation to fear, as the circulation of francs was backed in France alone by a large gold reserve.

It may, therefore, be fearlessly maintained that had the States of the Latin Union determined to continue the unlimited coining of silver after the year 1873, as France after the year 1851, in spite of the warnings of many authorities, continued its coinage of gold without restriction, then the other causes of the depreciation of silver above mentioned would at least have been almost completely neutralized for a series of years, and the price of silver would only have fallen slightly.

Similarly, had America also coined as many standard dollars as has been actually the case, it would beyond doubt have been quite sufficient to maintain the value of silver if in France and the other states of the Latin system an additional sum of 100 to 120 million francs yearly had been coined into silver currency. There would then in the years 1874-1887 have been coined in these countries a surplus of 1,600 to 1,700 million silver francs. The continuous inward flow of silver would certainly have caused an outward flow of gold from the Latin States, but according to the experience of the reverse movement of the precious metals which took place in France in the years 1850-1869 it may be assumed that the amount of gold exported would be far from reaching that of silver imported. It is true that under these conditions a premium of varying amount on gold would have asserted itself in these States, i.e., in the open market there would be a certain deviation from the legal rates ($15\frac{1}{2}$ to 1), but in consequence of the very large reserve of gold in those countries, and especially in France, the premium up to the present time would hardly have risen higher than the maximum rate attained in the time of Louis Philippe before the Californian discoveries, which gave rise to a relative value of about 16 to 1.

If, however, the Latin double currency, working without hindrance, very probably would have maintained nearly the old price of silver up to the present

day, on the other side it is true that its influence must gradually have grown weaker if in the future the production of silver continued to increase and the production of gold as hitherto went slowly down. Silver money would then, in spite of the legal system, have attained a predominance in the Latin States, gold would have completely disappeared, if not entirely from the country at any rate from ordinary currency, payment for notes and exchanges would be made only in silver, and in order to retain the gold a premium would have to be paid, rising higher and higher by reason of the gradually growing absolute and relative abstraction from the gold reserve.

The mechanism of the double currency would be powerless against this rise in gold unless some considerable increase in the gold production were to ensue, and that is certainly not to be expected. But after all, under our hypothesis, the relative fall in the value of silver would ensue not only much more slowly and with fewer violent oscillations than has actually been the case, but the depreciation would have been far from reaching the point which it now actually has attained, because silver would then, in an important group of countries, have maintained an unimpeded and increasing application as a money metal.

II. What probability is there of a continuance of the fall?

If the United States and India continue their coinage of silver to their former extent, then with the present relative production an average price of 44 to 45 pence for the ounce of standard silver may be maintained. In this computation sight has not been lost of the fact that in consequence of events in the trade of Eastern Asia there have been exceptions on the one side up to 42 and on the other side up to 47 or 48 pence. That the price of silver for a very considerable time was fairly maintained at 51 pence, and only in 1886 was reduced by a new blow to the above-mentioned average, may be explained by the following. Not till 1885 did speculators begin to give up the hope of some general regulation in favour of silver on the part of Germany or other States, so that now for the first time the normal price has asserted itself. Were, however, the United States to suspend the coinage of silver dollars, then the balance between production and consumption would be again wholly upset. Nearly a quarter of the whole annual production of silver, which hitherto has been retained in America owing to artificial appreciation, would then come as an ordinary commodity upon the world's market and would have to find a sale, thus lowering prices regardless of consequences, either in trade in Eastern Asia or for industrial purposes. Whether the price would then fall to 35 or 30 pence or even lower still can naturally not be foreseen. And it is quite impossible to estimate how far the depreciation of silver would go should a suspension of coinage in British India deprive silver of what now is its most important market.

III. To what do you attribute the fall in the wholesale prices of many commodities which has been in progress during the last 10 or 12 years?

The fall in price of many commodities in wholesale trade may be attributed to various causes, of which each is of special importance to special branches of production. The most important of these are:—

- (1.) The competition of newly-opened districts in which certain products, such as grain, can be grown with much less cost than in Europe. This competition has become possible chiefly through the building of great railways in America and India, and through the cheapness of sea freights.
- (2.) The considerable increase of large industrial factories, not only in the original industrial nations, but also in those which were formerly more or less backward. Their custom is now being more and more withdrawn from the former.

- (3.) The stimulation to the export of agricultural products from Eastern Asia in consequence of the depreciation of silver, and, from the same cause, the impediment to the import of European articles of industry into these countries.

The first cause operated more especially in depressing the price of wheat owing to American competition, which, during the last 10 years, has attained an extraordinary extent. It may be argued that the export of wheat from America has considerably decreased of late, and, *e.g.*, in the fiscal year 1885-86 it amounted to only 58 million bushels as compared with 153 million in the year 1879-80.* How then has it come about that it is exactly in that year 1885 that the price of wheat fell lower than ever? To this it may be replied that it does not depend upon the quantity of wheat which America actually delivers in Europe but upon the quantity in hand or quickly procurable, which in case of an increased demand could be at once delivered at the low price quoted. The harvests in Europe were, of late years, comparatively good, and their increased yield, as compared with the years 1879 and 1880, had to find a market by competing with the American wheat. This was effected by extensive lowering of price, which injured the producer both in America and Europe. But whilst the European farmer very frequently failed to recover the cost of production at these prices, the wheat grower of the American West only lost a possible extra profit. For him even the low price leaves a normal profit over, and so at these prices they keep on pressing upon the European market with the whole of their producing power. The theory of Ricardo, according to which the price is equivalent to the cost of production under the most unfavourable conditions (including the normal interest on capital), only holds good on the supposition that the more favourably situated classes of producers are already fully engaged to the extent of their whole producing power. If, however, one of these favoured classes can further extend their production, then it rules the market, and fixes the lowering of price, be its actual sale great or small, *i.e.*, whether it compels the less favoured competitors to suspend their production or to sell at a loss.

Analogous to the fall in the price of wheat is the extraordinary fall in the price of copper which has continued until October 1887. In the western territories of the United States, especially in Montana, new and rich copper mines have been opened, and through their output the American production rose from 40,000 tons in 1882 to 74,000 tons in 1885. As simultaneously the great Spanish mines increased their output, this extraordinarily augmented quantity of the metal could only find a sale by a reduction in price, which, in the end, fell to two thirds of the former average price. Many of the smaller and less productive mines were certainly obliged to close operations; but the diminution in production caused by this was inconsiderable, compared with the constantly increasing quantities thrown upon the market by the larger works in spite of the considerable reduction in their profit.

Over-production, which, in the case of copper, has been caused by the opening of new mines, has, in the case of many branches of industry, arisen simply from the fact that large manufactories, iron works, and other businesses have been started whose power of production far exceeds the present demands of the market. The more favourable the conditions of production of such an undertaking the more will it strive to bring to the market a quantity corresponding to its actual power of production, and even if this cannot be done, yet it co-operates in causing a depression of prices under which the less favoured undertakings can earn no profit, or indeed suffer actual loss. Of these latter, some fall to the ground, but precisely those whose production most contributes to the result will not allow themselves to be crowded out, but continue their operations even when they are without profit owing to a glut of the market. These are the large industrial *joint stock companies*. Their directors have an immediate interest in keeping the undertaking in operation, even although it yields no dividend, and the shareholders are quite content, provided there be no deficit to be covered; and even in this latter case, they prefer as a rule to issue preference shares and to take them up themselves, rather than to go into liquidation, in which case they would probably lose their whole capital. In this way industrial over-production, *i.e.*, a competitive struggle and a standard of prices which renders a great part of the commodities produced to be

produced without the usual profit or even to be sold at a loss, may become chronic, and there appears to be no other means of protection against it than conventions between the great producers. These have latterly been frequently attempted, although their action has rarely had any lasting result.

The influence of over-production on prices is naturally intensified by the fact that it has arisen simultaneously in all industrial countries, and that many countries whose industries are less well developed impede the import of foreign manufactures by protective duties.

Finally, as regards the influence of the depreciation of silver, it operates on export and import in countries with a silver currency, just as the depreciation of paper money does in countries where there is a paper currency. Those who have lived in one of the latter know from daily experience that even considerable movements in the premium on metallic money exert for a considerable time no noticeable influence on the retail price of inland products, on wages, and on rents. This is the case too with regard to the movement in value of the rupee as compared with gold, even though this fall in the Indian currency has arisen from quite other causes than (*e.g.*) that of Russian paper money.

Were, then, the exchange value of the rupee to go further back still in India, so far as regards labour and the ordinary products of the land, it would maintain for some time the same purchasing power. These products, therefore, if valued in gold can be produced at a less cost, and consequently they can be sold in the gold-currency countries either at a greater profit or, if lower prices are necessitated, at all events with the normal profit.

The first case will only be of a transient nature, for competition will soon cause the extra profit, which at first may be regarded as a kind of premium on exportation, to disappear from the difference in value. Especially in the case of wheat, a commodity which is thrown upon the European market in such superfluity, the depreciation of the rupee can only serve to induce a lowering of prices for the Indian product in Europe by which it forces a sale for itself. Therefore the difference in the price of wheat in London and Bombay is not greater than it would have been under the former value of silver after allowance is made for cost of transport and traffic. The Indian wheat growing districts which have now become opened up by railways possess through this difference in value as well as through their natural advantages for production a still further advantage, so that they must be classed on the European market with the most favourably situated competitors who in the matter of lowering of prices are able to go the furthest of all. An opposite effect is produced on the importation of the products and manufactures of the gold-currency countries into India and China, owing to the depreciation of silver. The wages and the nominal income of the great mass of the population there are expressed in silver and have risen either very little or not at all. The population of India is now therefore not in a position to pay any more rupees for English cottons than in the time when silver was of full value. For the English exporter, however, a similar amount of rupees now yields in gold 30 per cent. less than before, and he must therefore either suffer a diminution in his sales or lower his prices calculated in gold to correspond to the depreciation of silver.

Finally, mention must be made of yet another universal cause of the fall in price of many commodities which arises from the aggregate of these single causes. The latter have caused many necessary elements in production, such as raw materials, machinery, and the like, to become much cheaper. In consequence the cost of production of many other commodities has in turn been reduced, both those which had already been independently affected and also those with which this was not yet the case. Owing to the present keen competition in all branches such a reduction of the cost of production must again in its turn lead to a reduction in the price of the product. Further, in every branch of industry great efforts are being made to compensate the loss of profit by the introduction of economical improvements in management, more suitable machinery, and the like. These improvements contribute a factor to the depression of prices, and moreover one which in time to come will still exert an influence. There is thus being adjusted a new system of relative values based on a lower level of prices, and in it only those will find themselves in a satisfactory position who are not dependent on the past owing to too high expenditure on capital or debts.

* The importation of flour has certainly increased, but only from 6 to 8 million barrels.

The above-mentioned causes appear to me to fully account for the fall in the price of commodities, especially when we see that, owing to combinations which counteract these causes, in certain commodities an upward movement of prices can be caused, as has been the case latterly with copper and tin.* Considerations of currency come therefore, in my opinion, into our problem only so far as the depreciation of silver stimulates export from Eastern Asia and depresses import into this great trading district. The assumption that the depreciation of prices rises from a scarcity of gold and a consequent rise in the value of gold, seems to me not yet to be justified by the facts. In America, France, Germany there are, besides the gold coins, immense sums of silver money, paper money, and uncovered bank notes, and these media of circulation are fully equivalent to gold in value owing to public or private credit, and therefore in the fixing of prices they have the same influence in commerce as a corresponding amount of gold money would have. No one can maintain that in these countries there is any dearth of media of circulation. The United States coined from 1877 an annual average of 48 million dollars in gold, considerably more than was coined in the period from 1851-1860, in which the annual average was only 33 million dollars. Besides this there are annually about 28 million standard silver dollars which enter into circulation as such or are made available in the form of silver certificates. Except France during the years 1851-1860 no country has so largely increased its stock of metallic money as have the United States in the decade from 1877 to 1886, and yet prices in that country have manifested the same movement as they have in Europe.

In France for the latter years we find in the vaults of the Bank a cash reserve of 1,100 to 1,200 million francs in gold and a like amount in silver of legal tender. Besides this the note circulation amounts to 2,600-2,700 million francs, and is therefore covered to the extent of nearly a half in gold, and nearly five sixths in metal. Were there an increased demand for circulation there could be—political quiet and peace being assured—an issue of 500 to 600 million francs more in notes covered by the existing cash reserve without causing thereby the least injury to credit.

In Germany too there can be no talk of any dearth of circulation so long as the Imperial Bank holds a cash reserve of 650 to 750 million marks in gold and silver, which is treble the sum which before 1870 was quite sufficient for the Prussian Bank. Nearly three fourths of the amount of the notes issued by the Imperial Bank and the other banks of issue are usually metallically covered, and therefore the issue of notes could, if it was only a question of the credit of the notes, be increased by a sum of some hundred million marks on the present cash reserve. The Bank Act which imposes a duty on uncovered notes when the issue exceeds 385 million marks would certainly restrain such an additional issue, but would never in any way prevent it were the needs of commerce seriously to require such an issue.

In England people talk of a scarcity of gold when the reserve of the Bank diminishes and consequently the official rate of discount is raised. These, however, are only symptoms of the sensitiveness of the English money market, chiefly caused by the unelastic organisation of the Bank according to the Peel Act. There is no evidence from it that it is occasioned by a universal scarcity of gold, for we find that in the year 1857, the period of most active gold production, the reserve of the Bank of England was lower and its rate of discount higher than has ever been the case in the last 10 years. Similarly, we find a sharp stiffening of the rate of discount and a large diminution of the reserve in the year 1873—the period when the prices of the commodities were highest.

Certainly the aggregate reserve of gold in England has of late years experienced a diminution owing to excess of its export over import and to its application to industrial purposes. This fact depends partly on the extension of the gold currency system in that now there is a more complete adjustment between England's gold reserve and that of other countries. But, besides this, it must be noted that England has always striven to do with the smallest possible cash reserve, and all its arrangements have been made with this end in view. Owing to the retarded flow of business a portion of its gold reserve became superfluous, and also the amount of payments through the Clearing House decreased.

* The prices of lead and zinc also had previously risen.

The departure of a certain amount of gold must, therefore, be regarded not as the cause but the effect of depression in trade. In any case there is no justification for the statement that England possesses less circulation than are normally required, as we see that the average rate of discount remains very low, and owing to substitutes of other kinds, especially to the facilities of the Clearing House, there is less use made of metallic money than was the case in former years. But even if England had really lost too much gold, the fall in the prices of commodities could not be attributed to it, because it is a universal phenomenon to be observed even in the countries which receive gold from England or in other ways have increased their cash reserve at its expense.

A low rate of discount is not of itself a proof of a superfluity of circulation, but only of an accumulation of unplaced and movable capital. When, however, this coincides with large cash reserves in the banks, as has been for many years the case in France and Germany, then a proof may undoubtedly be seen in this coincidence that there is no truth in the assertion of the existence of a dearth of money operating to depress prices. It is certainly possible, and indeed probable, that in the future, if the circle of gold currency countries is enlarged, or the production of gold further decreased, that scarcity of gold and consequent appreciation of gold as compared with commodities might be occasioned. I believe, however, that this circumstance could be at once detected in the rise of permanent and increasing premium on gold in those countries which, like France and the United States, have concurrently with gold a large silver circulation and much paper money or great power of extension in their issue of bank notes. Hitherto, however, in these countries but few and transient premia on gold have been paid which can well be accounted for by temporary conjunctures.

IV. Has it (the fall in prices) extended to (a) retail prices, (b) wages and other payments for services rendered, (c) land and houses?

A further argument against the assumption of a universal rise in price of gold may be found in the fact that the depreciation of prices has confined itself almost exclusively to commodities in wholesale trade; and even in these not without considerable exceptions. Only in the case of single articles, e.g., sugar and petroleum, have retail prices followed to any great extent the movement in wholesale prices; in the case of most commodities on the contrary, especially in the case of bread and meat,* only a very slight cheapening or none at all has occurred in retail trade.

The wages of the industrial classes have on the whole gone back but slightly, and are still higher than they were in the year 1870. Agricultural labourers have almost completely maintained the rise which they gained in the years 1872-3. The wages of servants show a continuous rising tendency, and even services of a higher class, e.g., those of artists and medical specialists, are on the whole more highly remunerated than formerly. The same holds good of theatrical representations, concerts, and the like. Moreover, the increased discrepancy above mentioned between retail prices and the depressed wholesale prices can partly be accounted for by the higher value of the services rendered in connexion with retail trade. Besides, the glittering ornamentation of shops and the higher rent paid in good localities frequently contribute to the same end. Farms and land in the country have more or less fallen, still not so extensively as might have been expected from the lowering of rent. This may be explained from the fact that the return from State and other good securities has also fallen, and therefore the factor of capitalisation has risen in favour of the land property. Certainly if land is sold by auction under a forced sale it often realises only a very low price, but in ordinary free traffic on the other hand the ground landlords hold out for comparatively high prices. The prices of houses have on the whole not fallen although building materials are cheaper. House rents in Berlin have, it is true, not been able to keep at the extraordinary elevation which they attained there under exceptional circumstances in the year 1872; but in general in the German towns, although there is a great deal of building in nearly all of them, they have for the last 10 years remained about the same.

Certainly, in Germany, people, and especially the middle classes, have the impression that during the

* The wholesale price, too, of meat, that is, the price paid to the growers, has fallen in Germany but slightly.

period of pretended increase in the purchasing power of money, cost of living has become greater for them. The Government too has given expression to this opinion by recognising a rise in the stipends of its officials as justified thereby.

V. Has the fall resulted in any material prejudice to the commercial or general interests of the world?

If we consider the present movement of prices in the aggregate from the standpoint of universal economics then we are hardly justified in saying that it has done harm to humanity. The powers and treasures of nature in newly opened districts have been pressed into the service of the civilised world, and an immense apparatus of railway, steamers, machines of every description has, in consequence of the keen competition of its owners, rendered to human society its mechanical services for an unwontedly low price. The profits of capital have diminished, but on the other hand the value of human labour, including all kinds of services, has risen rather than fallen. The fall in the price of wholesale commodities has been prejudicial to certain classes and groups; but other classes must have benefited to an equal extent, and, if these latter are not the consumers, then it must be the middlemen in trade or the classes which work directly for the public. Amongst these many during the last decade have attained to prosperity, especially bakers, butchers, publicans, and, in many towns, masons and others employed in building. Symptoms of general economic pressure are certainly not to be found in Germany. The number of new buildings is, as was said, very large in many towns, and the new houses are if not in every case very tastefully built, still erected with a far greater attention to luxury in the way of decoration and comfort than was formerly the custom. The public places of amusement are more frequented than ever, the number of tourists increases every summer; all watering-places and summer resorts are full to overflowing. New necessities of existence and requirements of luxury are always extending in wider circles, and the feeling mentioned above as to the increased expense of living is undoubtedly closely connected with this increase of the superfluous things which are regarded as necessities.

Although meanwhile humanity in general has suffered no economic injury through the fall in prices, still on the other hand it is possible that one particular country may have received more harm than benefit from this evolution. England, perhaps, is in this condition, because so far as its industry is concerned, this lowering of prices is bound up with increased competition abroad and the loss of a part of its foreign trade. It is possible also that in a specified country the operation of a lowering of prices even when, regarded purely arithmetically, it balances itself in gain and loss, may still give rise to a division of wealth which from the social point of view seems less desirable than the former. In Germany it would be regarded as a very deplorable change and an injury to the common weal if the independent smaller landowners who work their own ground were ruined by the low price of grain and their farms conglomerated into the "latifundia" of the great capitalists.

VI. Do you consider that the countries using the gold standard, or any of them, are suffering from an injurious contraction of the currency which might have been obviated or mitigated by an increase in the supply of gold?

As has already been argued, the fall in the price of commodities cannot, in my opinion, be attributed to scarcity of media of circulation nor to a scarcity of gold. Still less cannot be maintained that in consequence of insufficient import of gold trade has been injured by a high rate of discount. As a matter of fact the official rate of discount of the Banks of England and France, and of the German Imperial Bank, taking the average of the years 1877-1886, has been lower than in any former decade, and in the private discount market this is true in a still higher degree. The maximum quotations, too, of the official rates have in the last decade not risen so high as formerly. The Bank of England did not in this period raise its rate above $5\frac{1}{2}$ per cent., whilst we find for 1873, *e.g.*, a maximum of $8\frac{1}{2}$ per cent., for 1872 $6\frac{1}{2}$ per cent., for 1866 10 per cent., for 1865 7 per cent., for 1864 9 per cent., for 1857 $9\frac{1}{2}$ per cent. The Bank of England is compelled owing to its legal organisation, not by any general scarcity of gold, to enter from time to time upon a struggle for gold; it has, however, as we see, been obliged in the time of the richest gold production to enter upon this struggle with much severer measures than in the last decade.

VII. To what extent and in what way are prices affected by the quantity of the metal or metals used as standards of value?

The amount of the precious metals used for money purposes stands in no fixed and specified relationship to the prices of commodities, although in general it is indubitable that *very great* alterations in its amount may in the end conduce to depreciation or appreciation in the value of the metals as compared to commodities in trade. What under given circumstances really happens depends upon the particular nature of those circumstances. It is possible for a considerable increase in the metallic money of one country to take place without prices rising; conversely too a considerable and general rise of prices may occur without any increase in the cash reserve of a country, or even simultaneously with a diminution of the cash reserve. For instance, the gold and silver reserve of the United States was considerably increased from 1878 to 1887, and for all that prices there as in Europe have gone back. France on the other hand had in 1873 prices quite as high as other countries, although it had lost more than 600 million francs in metallic money owing to the payment of the war indemnity to Germany. England and other countries too had in 1872 and 1873 to pay gold to Germany, and still prices rose in their markets as well.

A general rise of prices always takes place when there is a general upward movement of the economic conditions of life caused by great speculative activity or rapid business advance. If the real conditions of an extension of production and commerce are recognizable then business without any difficulty whatever finds for itself in one form or other the necessary auxiliaries for the circulation. A large reserve of metallic money is to this extent favourable to a rising movement in prices, in that it affords a surer base to the mechanism of credit and facilitates its extension to a further extent than would be practicable with a smaller cash reserve. On the other hand a mere increase in the metallic reserve is in itself not in the position to cause an improvement in the economic relations of a country. What is the gain if, *e.g.*, England sells commodities in America at a loss and receives in exchange for a part of these exports not cotton or other American products but gold? If business languishes in a state of stagnation then this gold will make no difference in the position; it will be stored up in the bank and so change a certain number of formerly uncovered notes into covered notes, or take the place of other auxiliaries to the circulation whose application will be correspondingly reduced. The Bank of England in July 1879 had a cash reserve of over 35,000,000*l.*, whilst only 29½ million of notes was issued to the public, for which in consequence there was a surplus cover of nearly 6,000,000*l.* And yet this quantity of gold in spite of a very low rate of discount did not suffice to give any movement to business, for the temporary improvement of prices which occurred shortly afterwards proceeded from the American market and was in no way produced by the offer of gold by the Bank of England.

VIII. What is the relation, if any, between the supply or quantity of the precious metals and the fluctuations of credit?

Fixed relations between addition to the quantity of the precious metals and extension of credits are not to be discovered. A large cash reserve in a country may operate in causing a part of the auxiliary means of credit in business to be crowded out, or, more especially, in confining the extension of such auxiliaries. So, for instance, in France, a country which still of all European countries possesses the largest metallic cash reserve, the cheque and Clearing House system is but little developed. Under other conditions, on the other hand, a large cash reserve may favour a proportionate extension of credit, as was undoubtedly the case in Germany, for instance, in the years 1872 and 1873. Just so we find in the first years after the discovery of gold in California and Australia, an exceptional extension of credit in Europe coinciding with a great increase in the metallic money. This was specially the case in speculative matters until the crisis of 1857 gave a check.

I have already given the reasons above for considering that the movements of the rate of discount of the Bank of England, and consequently the extension and contraction of the willingness of this institution to give credit, are not immediately caused by the general economic relations of the import of gold, but depend upon causes which ensue from the Bank Act,

IX. Has there been during the last 15 years any important development of the system of cheques, bank credits, bills of exchange, or other means of economising the use of the precious metals?

In Germany the use of auxiliaries to the circulation which save the currency has made considerable progress. Especial mention must here be made of the development of the "giro" system in the Imperial Bank, a system of deposit and payment which embraces the whole empire, inasmuch as the depositors can avail themselves of the branch offices (over 200) as well as of the head office. The aggregate amount of this business, which in 1876 was quite inconsiderable, has since then steadily grown. In the year 1886 it had reached the amount of 28,820 million marks. Besides this the Imperial Bank has in connexion with many other banks instituted Clearing Houses in nine towns, through which in 1886 payments to the amount of 13,356 million marks were made.

X. Do you consider that an international agreement could be made for the free coinage of gold and silver as legal tender money at a fixed rate?

An international agreement for the free coinage of gold and silver according to a fixed relative value would in my opinion be possible if England were unconditionally to enter into this bimetallic convention, and so allowed an unrestricted coining of silver currency money according to the accepted value.

XI. Is it in the power of Governments to maintain such a ratio if agreed upon; and would the practice of the commercial world follow the law?

A general agreement as to the relative value of the two precious metals on a given ratio, if accepted by England, the United States, Germany, France, Italy, and other States for their coinages, would exert a much stronger influence on the relative value obtaining in free trade than did the French double currency system formerly. If the bimetallic union were to fix upon the old French rates as its basis ($15\frac{1}{2}$ to 1), then silver would undoubtedly in a very short time rise to $60\frac{7}{8}$ pence for the ounce of English standard fineness, because any amount could be made to realise this value by the most important mints. How long, however, the value of silver as compared with gold could be maintained would depend upon the relative production of the two precious metals. The theory of bimetalism has silently taken for granted what certainly corresponds to actual experience hitherto, that both precious metals will again be subjected to periodic increase and decrease of production. For it would certainly always be possible by means of a bimetallic system to support a metal which was temporarily threatened with depreciation in consequence of an increased supply, until, by a considerable diminution in its production, or a great increase in the production of the other metal, a reverse movement occurred. If, however, the production of silver steadily increased (even with diminishing celerity and not above a certain fixed upward limit) while that of gold continued slowly to decrease and approximated to a downward limit, then even a world-wide bimetallic union could not maintain in the open market the former relation of value between the two precious metals. The amount of silver money to hand in the bimetallic states would then reach very soon the double, then the treble, and more of the supply of gold money, silver money would then become the actual general measure of value, the representative of the standard value of the country, and gold would as compared with it reach to a premium, the amount of which could by no manner of means be limited by the bi-metallic organisation which would then be working with empty hands. For such an organisation can prevent the sinking of a plentiful product but not the rise of a metal which is becoming scarcer. Now, however, the production of silver in spite of fall of its price has continued for a long series of years to increase more and more, and now, reckoned in the old value, it has attained to an annual amount of 550 million marks. All this goes to show that in consequence of the improvement of means of transport in the American mining districts and of the progress made in the technique of metallurgy, together with the practically inexhaustible wealth of ore in North and South America, the production of silver will still further increase. A rise in the price of silver would also immediately bring with it a marked increase of production since at present great quantities of poor ore are set on one side which, with silver at a higher price, would be smelted with profit.

On the other side the production of gold has for 20 years kept slowly receding and now it reaches an annual average of only 400 million marks. It is precisely on the part of bimetalism that the arguments have been exposed which make probable

the continuance of this retrograde movement, and show that discoveries such as those in California and Australia in 1848 and 1851 are not to be expected. I believe indeed that quartz mining is capable of greater development, but it is in any case very probable that the annual yield of gold will fall within a short time to 350 million marks and later perhaps still further. On the other hand, according to Soetbeer's estimate, there is now an annual consumption of 250 million marks of gold either in the form of new bars or of coin for industrial purposes, and this amount will most probably be increased by degrees as the population and prosperity grows. Besides this, there is an annual flow of about 70 million marks to India which is either melted down or hoarded there. Even at the present moment, therefore, the greater part of the annual production of gold is not devoted to any permanent monetary purpose. The more this annual production diminishes the more will its use as a material for money decrease in importance; indeed, it might well be possible that in the end the annual requirement of gold for industrial purposes would equal the amount annually yielded. But long before this point had been reached the trade value of gold, consequently in the bimetallic union the premium on gold, quite independent of any influence exerted by a legal relative value, would be able to rise, because the industrial demand for gold would have become by far the most important. But in the form of coin, too, gold would acquire a greater preference in proportion as the amount of silver money was increased. If the old prices were restored the annual production of silver would certainly exceed 600 million marks, and it would then, after fulfilling all the needs of industry and Eastern Asian trade, leave over 300 million marks which must be coined into silver money in Europe and America. Thus, in 20 years, the amount of silver money would have been augmented by more than 6,000 million marks, whilst the supply of gold coin would have increased only by a few hundred millions. Such an increase of metallic money would, it is true, be in itself neither excessive nor injurious to humanity, especially if some of the countries which now have a paper currency were to resume cash payments; but the official relative value of the two precious metals would, under such circumstances be made wholly illusory by a premium on gold which would rise slowly indeed, but surely, and with no limit to its height.

XII. What would be the effect of such an agreement, if carried out, upon (a) prices, and (b) the production of the precious metals?

If the former relative value of the two precious metals were restored by the formation of a bimetallic union, which regulation, however, according to what I have just mentioned, could only be carried through, so far as free trade is concerned, for a not very long series of years, then, owing to the permanent increase of silver money, which would finally become the actual standard of value, certainly slowly increasing depreciation in the value of money as compared with commodities would set in. For the whole development of modern trade is directed towards the object of making an increasing number of business transactions possible by means of balancing and accordingly limiting the use of actual money. Germany and France, for instance, are continually striving to make the use of metallic money dispensable to the same degree that it already is in England. If, however, in spite of this a considerable and indefinite coinage of silver throws a continual increase of metallic money into circulation, and does this coincidentally in all lands of economic importance (which will prevent the escape of the surplus), then this fact in combination with the existing tendency towards a decrease in the demand for money will cause a gradual sinking of the value of money as compared with marketable commodities.

As, however, the production of gold will in all probability decrease, we may assume that the aggregate of coinages from new gold and silver in 20 years would still not be greater than it was in the years 1850-1869, and the operation of this increase of money on prices would in future probably be smaller than in the above-mentioned period, because it would now take place with a far greater quantity already on hand, with a greater population, and with a larger bulk of saleable commodities. Should Russia or Austria replace their paper money by metal, which certainly could only be done with a wider application of silver; then, as above stated, the influence of the increase of money would be still more considerably weakened. I have already discussed the influence of the restoration of the former relative value of the precious metals upon the production of silver.

XIII. Do you consider an international agreement for bimetallicism possible on any other ratio than 15½ to 1?

The adoption of an international bimetallic relative value approximated to the present price of silver about 20 to 1 or 21 to 1 would be much more commendable than the return to that which exists in the Latin Union. The production of silver would in that case experience no exceptional stimulation, and gold would retain the advantage in value which has accrued to it from its increasing scarcity. It is true if the production of silver continued to increase and that of gold further decreased then even with this raised relative value of gold there must in the end arise an ever increasing premium on gold. But the point of time, when the official relative value would be definitely superseded by that of trade, would certainly, by the adoption of the new relative value, lie in a far more distant future than it would where the old relative value retained.

England would, perhaps, be the easiest to win over to this form of bimetallicism, Germany would then perhaps also decide for it; but France and the United States would probably fight against a bimetallic system with depreciated silver value with all their strength. For both countries possess enormous sums of silver money coined at the relative value of 15½ to 1 and 16 to 1, which by the new system, even if gradually introduced, would have to be recoined at a heavy loss, a loss which in France might amount to 600 million francs. In America there is a further consideration, the important group of those interested in silver who would raise an energetic opposition to any such official and final recognition of the depreciation of silver. Consequently for the practicability of the realisation of this relatively most durable form of bimetallicism there are no practicable prospects in view at present.

XIV. Failing an international bimetallic agreement, what measures could be adopted by the commercial nations of the world for giving increased stability to the relation between gold and silver?

Any permanent fixity of the value of silver can only be occasioned by the assured use of that portion of the metal which is not applied to industrial purpose and export to Eastern Asia as material for money by as many mints as possible. Isolated coinages even if they amounted to more than 10,000,000*l.* or 20,000,000*l.* would only temporarily raise the price of silver and consequently only produce fluctuations which in the interests of trade are not at all desirable. If, supposing the continuance of the American coinage of dollars, it were possible for the European mints still to work silver, at the present price, to an annual amount of 3,000,000*l.*, as a maximum sum, then this price would probably from time to time be exceeded, but a further sinking would hardly occur. As, however, the European States which have gold currency would not likely determine upon a coinage of silver currency, even in limited sums, it appears to be more practicable for these states to organise to a certain extent an official trade in silver with the intention of maintaining the value of this metal above a certain boundary and keeping as far as possible stationary. Let us suppose England, Germany, France, and other states declare themselves ready to buy at any time silver at a price which even under the present relative value might easily be still further exceeded. This they would do by means of paper money, which would be based on gold currency and covered by the silver so bought. Then at once in every official place of deposit there would be some millions of marks collected whilst the price would be prevented from falling below the official quotation. This collection of silver would, however, scarcely ever reach a burdensome or considerable amount, because the price fixed for purchase would be, as was said, fixed somewhat low, namely, under the mean of the fluctuations of the last few years. A temporary brisk demand for Eastern Asia or for industrial purposes would then cause a rise in the price of silver, which, however, would be at once combated by heavy sales on the part of the places of deposit, and so compressed within the narrowest limits. These sales could be made to work against gold as well as against the funded paper money; in the first case the still outstanding paper money would be fully, or, indeed—on account of the small profit on its sale—more than fully covered by gold by the deposit stations. Should the whole amount of the silver bought be absorbed by the sales, then the operation would have to be begun again at a higher buying price. If, on the contrary, in spite of a cautious choice of the initial

buying price, an excessive collection of silver occurred, then certainly that price would have to be lowered, and the state would then, through the depreciation in value of its reserve of silver already in hand suffer a loss at least for a time, but that might be equalised by the profit which later on it might make when prices were better. The initial price would have to be so chosen that a fall of this kind must appear exceedingly improbable. Moreover, the danger of such an excessive accumulation of silver would be reduced for each individual state in proportion as more states participated in the carrying out of this system. With an increasing diminution of the production of gold, the silver-covered paper money, by which the principle of gold currency would not be attacked, would become a very useful substitute for gold, and therefore could be issued to a considerable extent without any detriment being to be feared from it and from the accumulation of silver connected with that issue.

XV. It is argued that, in the absence of bimetallicism, the effect of any disturbance of the currency is limited to half the currencies of the world, and thereby increased in intensity. Do you consider this view correct; and, if so, do you think the evil a serious one?

The double currency during the rule in France had the effect of keeping the two precious metals closely within bounds during fluctuations in their relative value. Especially but for the equalising influence of this system would the depreciation of the value of gold as compared with silver in the 50 years have been much more considerable. Conversely, as has before been remarked, the fall of silver would have been almost wholly postponed for several years, perhaps indeed up to the present day, had France and the states in its coinage union been able to maintain the double currency with unlimited coinage of silver. The stability of the relative value of the two precious metals is a matter of advantage for the economy of the whole world, for large and frequent fluctuations make trade between the gold and silver currency countries a gambling speculation, and produce the artificial advantages partly for export and partly for import of which mention has been made above.

XVI. If the effect of such disturbances could be spread over all countries, would greater stability of the standard of value be secured thereby?

When the influence of a great and sudden increase in production, whether of silver or of gold on the relative value of the two metals, is weakened or altogether neutralised by a double currency system, then at the same time the influence of the disturbance is extended over the whole mass of gold and silver money of all countries, and consequently on the whole greater stability in the money value is maintained. For all sudden and immediate influences on money have relatively greater power than have quantitatively equally great influences which assert themselves but slowly and through manifold intermediaries.

For the future deviations in the increase of the production of gold and silver, as hitherto they have actually occurred, are hardly to be expected any more. Our knowledge of the geographical distribution of gold and silver is, it is true, not yet perfect, but it is sufficiently advanced to justify the assumption that the production of gold will steadily *diminish*, although, perhaps, not to an unlimited extent, whilst the production of silver will still further extend. An internationally fixed relative value for the two metals is only in a position to be able to protect silver which is produced in greater quantities from a corresponding depreciation, but it is not able to prevent the rise in value which gold by reason of its gradually increasing scarcity attains. An *everlasting* relative value could therefore under such circumstances never be fixed; such a relative value, however, as corresponded with the present price of silver would enable a sufficient fixity of this price to be maintained for a long series of years.

If, moreover, America continues for some years longer to coin silver dollars, then, perhaps, the silver question will practically and simply be settled by the United States being compelled owing to their supply of dollars to go over to actual silver currency. Then perhaps other States would again be more friendly to silver, and so the necessity of applying this metal once more in some way in larger quantity as the material for money for most countries in view of the probable future diminution of the production of gold would be practically more and more recognised.

Göttingen, 1st December 1887.

DR. W. LEXIS,

(4) M. EMILE DE LAVELEYE, Professor of Political Economy at the University of Liège.

I. To what do you attribute the fall in the value of silver, as compared with gold, since 1874?

It is perfectly evident that the fall in the value of silver as compared to gold is *entirely* due to the legislative measures that have been adopted by different States, *i.e.*, firstly, the adoption of the gold instead of the silver standard by Germany and the Scandinavian States, and, secondly, the suspension of the coinage of silver by the Latin Union, to begin with, and afterwards by all other countries, save India and the United States.

If the coinage of silver had not been abandoned, this metal would not have lost in value through increase in its production. As all silver now produced finds readily employment, and that no stock of it accumulates anywhere, is it not quite clear that had the mints of Germany, of the Latin Union, and of America been kept open, they would very easily have absorbed the surplus production? As a kilogram of silver will always fetch 200 francs in standard money at the Paris mint, it is quite certain that the price of silver would have maintained itself at about 60½*d.* per oz., precisely as during the time that the bimetallic system was in vigour in France.

II. What probability is there of a continuance of the fall?

Will the fall in the value of silver continue? That depends on America. If the Bland Bill is repealed a fresh fall is inevitable.

III. To what do you attribute the fall in the wholesale prices of many commodities which has been in progress during the last 10 or 12 years?

The fall of the price of certain commodities is due to the increase of their production, to improved facilities for transport, to the advance made in machinery, and to a general amelioration in all modes of fabrication and manufacture; but a *universal* fall in prices, affecting all produce, even that which is in no way touched by the afore-mentioned causes, can only be explained by a general reason, and this general reason must necessarily be monetary contraction.

Indeed, simple common sense alone would solve the question. Between the years 1850 and 1870 all prices rose, and economists agree in attributing this rise to an increase in the production of gold. Since 1873 just the contrary has occurred. The production of gold has steadily diminished, and silver is no longer allowed to make up the deficiency, a fact wholly without precedent in economic history. The coinage of moneys, so active formerly, has now almost ceased, while, at the same time, the exchanges effected are far more numerous than they used to be. All economists, without exception, teach that when cash diminishes, *ceteris paribus*, prices fall, and it is quite certain that since 1873 the stock of gold in Europe has immensely decreased, partly from the exports of gold to America and partly also because industry is ever absorbing a portion of the monetary stock.

The present production of gold is clearly insufficient. It is estimated to be about 18,000,000*l.* or 19,000,000*l.* annually. According to Burchardt's and Soetbeer's very careful statistics, trade yearly absorbs about 12,000,000*l.* in gold, due allowance being made for remelting; the extreme East has of late years taken about 4,000,000*l.*; the losses from wear and tear, shipwrecks, hidden treasures, and such like, amount to at least another 1,000,000*l.* There remains, therefore, at *most* two millions sterling to face the fresh demand for coin, which the immense increase in exchanges all over the world gives rise to.

As population and business steadily increases in the two principal gold producing countries, the United States and Australia, these keep for themselves all the precious metal they produce. In England between 1879 and 1884 the gold coined amounted to 7,922,830*l.*, during the same period the coinage of gold in Australia was 24,112,000*l.* and in the United States 231,000,000 dollars (46,000,000*l.*) The coinage of gold in the States exceeded the production by 150,000,000 dollars, and this excess was of course supplied by gold from the outside world.

The consumption by trade combined with the monetary requirements, more especially if the Bland Bill were repealed, would absorb all the gold produced in America, and the more so that this demand would be ever steadily increasing owing to the rapid growth both of population and riches.

It would be the same in Australia and in the extreme East. Europe would, therefore, have only Russia to look to in the future for her provisions of gold.

At the present moment all European countries, with the sole exception of France, have not sufficient gold in circulation. In England, indeed, this scarcity is an acknowledged fact. "Ten years ago," says the "Economist," "the disposal of the London Stock Exchange was estimated by a competent authority to be about 4,000,000*l.*; at the present time it is far below that, when a demand for a million of gold absolutely carries off this sum from the market, and detains it elsewhere, there is a sensible pressure on the exchange." ("Economist," February 4th, 1886.) This strange state of things to which the "Economist" here refers was again perceptible this autumn 1887, and is still felt while I write these lines.

Italy has already lost a considerable portion of the gold which she procured at such heavy cost, when payments in cash were recommenced there. Gold is everywhere at a premium from 2 to 4 per thousand in Paris and in Belgium, even at 8 at this moment (October 1887), from 2 to 3 per cent. in Spain, from 16 to 18 per cent. in Roumania. Holland, though a very rich country, has scarcely any gold in circulation, payments being effected in either silver or notes. Germany is lacking in gold to complete her monetary reforms, and Austria and Russia and all Eastern Europe have no gold in circulation. The scarcity of gold is indeed an undeniable fact, observable on all sides at the present time, and destined to become more and more apparent.

It may be objected that gold is not yet absolutely wanting; this is true to a certain extent, because, as prices fall when gold becomes scarce, the quantity of money always appears sufficient.

This is a special economic phenomenon. It may be maintained that there will always be a sufficient supply of gold, because all prices fall when the means of exchange are diminishing, and therefore a greater number of exchanges can be effected with a less supply of gold. Theoretically, cash might be reduced to a minimum, and it would still suffice, because prices would fall proportionately. And indeed the less plentiful it is the more abundant would it appear, for, as the lowering of prices would render all business slack, the non-employed capital would be deposited in banks. This has been the case during the last few years.

It is very easy to prove beyond a doubt that the marked and universal fall in prices is not due solely to an increase of production and to improved methods of transport. Between 1850 and 1870 the railway development and the application of steam made greater progress than during the last ten years, new inventions of all kinds in the industrial world rapidly succeeded each other, and yet during that time production immensely increased and prices rose. Between 1870 and 1885 economic progress was also considerable, but less than during the previous period, and nevertheless prices fell to a lower level than in 1850. How then can it be denied that monetary contraction was the cause of this. According to Mr. Sauerbeck, production in England between 1850 and 1870 increased 2½ per annum, and between 1870 and 1885 1½ only; while prices rose during the first-mentioned period from 18 to 20 per cent., and fell during second 30 per cent.

IV. Has it (the fall in prices) extended to (a) retail prices, (b) wages and other payments for services rendered, (c) land and houses?

The fall in prices has been general, but wages have not been so much affected, for the motives already indicated by Adam Smith.

V. Has the fall resulted in any material prejudice to the commercial or general interests of the world?

creditors, companies, share holders and holders of mortgages, and benefits people with fixed revenues; or, in other words, as Stuart Mill puts it, the active portion of society lose and the non-active are gainers; but the effects of the fall, while it is actually taking place, are still more serious. All transactions and enterprises payable at fixed terms are exposed to an inevitable loss, and this is most discouraging to public initiative. Hence the stagnation in business now observable. The capital put into the fresh undertakings started each year has diminished by one half. The reverse takes place during a period of expansion: all prices rise, profits are therefore assured.

Another serious drawback to the present situation is that as the ratio of value between gold and silver has become uncertain since the bimetallic system no longer exists in France, all commercial relations with countries where the silver standard is admitted are subjected to an *alea* which is most unfavourable to sound trade.

VI. Do you consider that the countries using the gold standard, or any of them, are suffering from an injurious contraction of the currency which might have been obviated or mitigated by an increase in the supply of gold?

formerly, the office of standard money. As gold alone has now to replace the two metals, as far as coinage is concerned, all countries fight for it, and the total quantity existing is insufficient. Hence the struggle for gold now taking place. As M. Bismarck says, the blanket is not wide enough!

VII. To what extent and in what way are prices affected by the quantity of the metal or metals used as standards of value?

and the amount of credit or metallic means of exchange, due allowance being made for the rapidity of circulation of these means.

VIII. What is the relation, if any, between the supply or quantity of the precious metals and the fluctuations of credit?

than in France, although England has certainly one half less than France, but taking into account the monetary situation of a country, the influx or exports of gold act momentarily on the rate of interest, because in order to maintain sufficient cash in hand banks must raise their rates of discount when gold is being absorbed elsewhere. For example, we know that the Bank of England regulates the rate of discount by the influx or drainage of gold, but the interest on capital is fixed by the abundance or scarcity of capital, not of money.

IX. Has there been during the last 15 years any important development of the system of cheques, bank credits, bills of exchange, or other means of economising the use of the precious metals?

I think he is right. The clearing house operations have certainly diminished.

X. Do you consider that an international agreement could be made for the free coinage of gold and silver as legal tender money at a fixed rate?

tender money at a fixed ratio.

In theory it is unimportant whether prices are high or low, but practically a fall affects all long-standing

affects all long-standing creditors, companies, share holders and holders of mortgages, and benefits people with fixed revenues; or, in other words, as Stuart Mill puts it, the active portion of society lose and the non-active are gainers; but the effects of the fall, while it is actually taking place, are still more serious. All transactions and enterprises payable at fixed terms are exposed to an inevitable loss, and this is most discouraging to public initiative. Hence the stagnation in business now observable. The capital put into the fresh undertakings started each year has diminished by one half. The reverse takes place during a period of expansion: all prices rise, profits are therefore assured.

Gold standard countries also suffer to an equal degree from the evils here above referred to, and all this would have been avoided if silver

had been allowed to fulfil, as formerly, the office of standard money. As gold alone has now to replace the two metals, as far as coinage is concerned, all countries fight for it, and the total quantity existing is insufficient. Hence the struggle for gold now taking place. As M. Bismarck says, the blanket is not wide enough!

All economists agreed that price depends on the relation existing between the mass of articles to be exchanged

The amount of money does not determine the facility of credit. For instance, credit is more general in England

Mr. Robert Giffen is of opinion that during the last fifteen years there has been no great increase in the means of payment, cheques, bank credits, and bank notes, and

No one can question the possibility of an international agreement for the free coinage of gold and silver as legal

XI. Is it in the power of Governments to maintain such a ratio if agreed upon; and would the practice of the commercial world follow the law?

automatic and perfectly natural, and consequently it would impose itself upon the commercial world. If for one kilogram of silver, $\frac{16}{15}$ fine, I can obtain from the mints of the Latin Union 200 francs in standard coinage, and from the mints of all other States, England, Germany, and America, an equivalent amount, it is quite certain that I should not choose to sell it under this price. Silver would therefore maintain itself at its usual value of 60½ or 60½ per oz., as during the 70 years when France alone had adopted bimetalism, without this country having once to attempt any interference as to its price or relative value. The self-acting result of the free coinage of the two metals is one of the least clearly understood sides of the problem.

XII. What would be the effect of such an agreement, if carried out, upon (a) prices, and (b) the production of the precious metals?

stock of gold or silver to flow into the mints, but it would stop their fall and would insensibly be productive of a certain rise. As the price of silver would increase its production would also increase a little.

XIII. Do you consider an international agreement for bimetalism possible on any other ratio than 15½ to 1?

For the ratio between gold and silver it might, perhaps, be well to adopt the American 16 to 1, but the French 15½ has been in vigour so long that it seems almost to impose itself. It is the basis of all contracts between States of the Latin Union, and in Spain, Germany, and Holland, and all Eastern Europe. Besides, America would as readily adopt the 15½ ratio as the 16. And if the ratio were once established by international contract it would impose itself.

XIV. Failing an international bimetallic agreement, what measures could be adopted by the commercial nations of the world for giving increased stability to the relation between gold and silver?

chandise, subject, like all other merchandise, to varying and limitless changes in value.

XV. It is argued that, in the absence of bimetalism, the effect of any disturbance of the currency is limited to half the currencies of the world, and thereby increased in intensity. Do you consider this view correct; and, if so, do you think the evil a serious one?

relations are now such that the entire world forms one great market. The fall in prices has been universal and has been productive everywhere of great suffering, ruin, and loss.

XVI. If the effect of such disturbances could be spread over all countries, would greater stability of the standard of value be secured thereby?

agreement, sudden disturbances would no longer take place and changes brought about by increased or diminished productions of the mines would be very gradual, almost insensible, as they would extend over such vast territory. After the year 1850 bimetalism in France, by assisting the absorption of about 260,000,000*l.* in gold, prevented the too great depreciation of this metal and arrested the rise in prices. It acts like a parachute, and even such monometallists as Michel Chevalier and Jevons admit this.

Governments would not impose the ratio they adopted, but the effect of their adoption of a certain ratio, let us say 15½ to 1, would be automatic and perfectly natural, and consequently it would impose itself upon the commercial world.

If for one kilogram of silver, $\frac{16}{15}$ fine, I can obtain from the mints of the Latin Union 200 francs in standard coinage, and from the mints of all other States, England, Germany, and America, an equivalent amount, it is quite certain that I should not choose to sell it under this price. Silver would therefore maintain itself at its usual value of 60½ or 60½ per oz., as during the 70 years when France alone had adopted bimetalism, without this country having once to attempt any interference as to its price or relative value. The self-acting result of the free coinage of the two metals is one of the least clearly understood sides of the problem.

A treaty establishing international bimetalism would produce no immediate results on prices for there is no great stock of gold or silver to flow into the mints, but it would stop their fall and would insensibly be productive of a certain rise. As the price of silver would increase its production would also increase a little.

For the ratio between gold and silver it might, perhaps, be well to adopt the American 16 to 1, but the French 15½ has been in vigour so long that it seems almost to impose itself. It is the basis of all contracts between States of the Latin Union, and in Spain, Germany, and Holland, and all Eastern Europe. Besides, America would as readily adopt the 15½ ratio as the 16. And if the ratio were once established by international contract it would impose itself.

Failing an international bimetallic agreement, I know of no measure which could give stability to the price of silver. If it cannot be freely coined, it becomes mere merchandise, to varying and limitless changes in value.

The disturbances of the currency were produced by the proscription of silver, but they are not confined to certain countries. They affect all, to a greater or less degree, because commercial relations are now such that the entire world forms one great market. The fall in prices has been universal and has been productive everywhere of great suffering, ruin, and loss.

If all the great commercial powers were to come to an international bimetallic agreement, sudden disturbances would no longer take place and changes brought about by increased or diminished productions of the mines would be very gradual, almost insensible, as they would extend over such vast territory. After the year 1850 bimetalism in France, by assisting the absorption of about 260,000,000*l.* in gold, prevented the too great depreciation of this metal and arrested the rise in prices. It acts like a parachute, and even such monometallists as Michel Chevalier and Jevons admit this.

(5.) The Hon. DAVID A. WELLS.

I. To what do you attribute the fall in the value of silver, as compared with gold, since 1874?

high civilisation, through the process of evolution, that gold is the best instrumentality for effecting exchanges and measuring values. The movement in favour of a gold standard, and the partial disuse of silver in such countries, has been brought about, in my opinion, through the same influences that prompt the substitution, regardless of cost, of new machinery for old, if the minimum of gain can be thereby effected in the production and distribution of commodities.

II. What probability is there of a continuance of the fall?

I do not apprehend a further decline in the value of silver as compared with gold. On the contrary, I look for a gradual advance in its value, and eventually a return to a parity of value with gold. My reasons for such opinions are briefly as follows:—

Silver is the coin medium for countries of comparatively low prices and wages and limited exchanges (and these mainly internal or domestic). Such countries embrace more than one half the world's present population; and as they progress in civilisation and increase their exchanges, which is a condition of progress, a larger *per capita* demand for silver coin will follow. A comparatively small *per capita* increase must create a demand that will ultimately greatly advance the value of silver.

III. To what do you attribute the fall in the wholesale prices of many commodities which has been in progress during the last 10 or 12 years?

To conditions affecting their supply and demand. If any, or all other causes have contributed to the remarkable decline in wholesale prices since 1873, the influence exerted has, in my opinion, been very inconsiderable. I doubt if any one can name one commodity which has notably declined in price in recent years, for which satisfactory evidence can be adduced to the effect that such decline has been occasioned by any appreciation in the value of gold.

IV. Has it (the fall in prices) extended to (a) retail prices, (b) wages and other payments for services rendered, (c) land and houses?

The decline in wholesale prices has affected retail prices to some extent, but not proportionally. Wages have everywhere tended to advance. The same is true in respect to other payments for personal service, salaries, &c. Land, generally, outside of large centres of population has not advanced in value. House rents in the United States does not seem to me to have varied much in recent years.

V. Has the fall resulted in any material prejudice to the commercial or general interests of the world?

The remarkable and continued fall in prices since 1873 has occasioned what is popularly termed "*depression of trade*." An analysis of what is involved in this expression shows that it cannot mean that trade has been restricted or has declined in volume, for the world's trade or exchanges measured by quantities has gone on progressively increasing during the whole period of depression, and is probably larger at the present time than at any former period in the world's history. Many people, however, have made less money in trade in recent years than before, in consequence of such depression, and many have lost money. But apart from such disturbances (which are temporary), if the fall of prices has been mainly due, as I believe to be the fact, to natural and permanent causes, namely, the increased power of mankind on the work of production and distribution, then the result by creating greater abundance and bringing a larger amount of the same within the reach of the masses with a less expenditure of labour or money has been one of the greatest of blessings.

VI. Do you consider that the countries using the gold standard, or any of them, are suffering from an injurious contraction of the currency which might have been obviated or mitigated by an increase in the supply of gold.

I fail to find any evidence that any countries using the gold standard have suffered or are now suffering from any contraction of currency.

VII. To what extent and in what way are prices affected by the quantity of the metal or metals used as standards of value?

VIII. What is the relation, if any, between the supply or quantity of the precious metals and the fluctuations of credit?

of credit.

IX. Has there been during the last 15 years any important development of the system of cheques, bank credits, bills of exchange, or other means of economising the use of the precious metals?

whereby the use of the precious metals has been economised.

X. Do you consider that an international agreement could be made for the free coinage of gold and silver as legal tender money at a fixed rate?

gold and silver as legal tender money at a fixed ratio; but I do not think any such agreement is probable.

XI. Is it in the power of Governments to maintain such a ratio if agreed upon; and would the practice of the commercial world follow the law?

XII. What would be the effect of such an agreement, if carried out, upon (a) prices, and (b) the production of the precious metals?

useless to speculate as to results if the contrary should happen.

XIII. Do you consider an international agreement for bimetallicism possible on any other ratio than 15½ to 1.

would be manifestly the part of wisdom to adopt such a ratio as would occasion the least disturbance to the mass of the then existing coinage. Under existing circumstances it would seem to me to be folly to attempt to establish either an international ratio of 15½ to 1 or any other ratio.

XIV. Failing an international bimetallic agreement, what measures could be adopted by the commercial nations of the world for giving increased stability to the relation between gold and silver?

stability to the relation between gold and silver which would not be likely to result in more mischief than good.

XV. It is argued that, in the absence of bimetallicism, the effect of any disturbance of the currency is limited to half the currencies of the world, and thereby increased in intensity. Do you consider this view correct; and, if so, do you think the evil a serious one?

XVI. If the effect of such disturbances could be spread over all countries, would greater stability of the standard of value be secured thereby?

has been due to the forced issue of redundant and irredeemable paper money, or debased coin, and has been local in its influence. The present experience is due to a depreciation in the value of one of the precious metals with reference to the other, and extends to many countries in different degrees. In all this there is, however, nothing unprecedented or in the nature of the unexpected, and there is no good reason for supposing that the disturbances which have characterised the trade of Europe with India and the East during recent years from fluctuations in the price of silver have been any different in kind than, or as great in

No opinion that I care to here express.

I do not believe that any permanent relation exists between supply of the precious metals and fluctuations

There has been during the last 15 years a great development in the United States in the use of cheques, bank credits, bills of exchange, and other instrumentalities

It is certainly within the possibilities that an international agreement could be made for the free coinage of gold and silver as legal tender money at a fixed ratio; but I do not think any such agreement is probable.

If such an agreement should be once entered upon, I do not believe it could be long maintained, because the conditions on which the permanence of such a ratio would depend are not within the control of Government, and are certain to vary.

Not believing that any such agreement as indicated in question No. 10 could be made or maintained, it seems

If an international agreement for making gold and legal tender at a fixed ratio could be entered into, it

would be manifestly the part of wisdom to adopt such a ratio as would occasion the least disturbance to the mass of the then existing coinage. Under existing circumstances it would seem to me to be folly to attempt to establish either an international ratio of 15½ to 1 or any other ratio.

In default of an international bimetallic agreement, I do not see what measures could be adopted by the commercial nations of the world for giving increased

stability to the relation between gold and silver which would not be likely to result in more mischief than good.

All the disturbances which have accompanied the change in the relative values of gold and silver are, in my opinion, the same in character as have always accompanied the use of a depreciated fluctuating currency; with this additional and novel peculiarity, namely, that while, heretofore, depreciation of currency

degree, as those which characterised the trade of Europe with the United States from 1861 to 1879, or which characterise to-day the trade of the outside world with Russia, whose currency is depreciated and fluctuating. "If trade can go on profitably with countries having an inconvertible paper of a widely fluctuating kind and the rest of the world, *a fortiori*, it can go on between gold and silver-using countries." Such disturbances constitute obstacles in the way of trade or exchanges, but trade soon accommodates itself to them, and the volume of business soon resumes its former flow in a continually increasing ratio. This has been the world's experience in the case of the recent

decline in the relative value of silver; the disturbances from which have, in my judgment, been greatly exaggerated, and have resulted mainly from apprehension, or *scare* of what might happen, but which has not happened. Future generations will, I believe, include in one category the alarms which have prevailed, and the dolorous predictions which have been made in recent years by reason of the decline in the value of silver with those which a century or two ago were consequent upon the appearance of comets, and the action of international conferences will be likely to have as much of influence in respect to the one as the "Bull" of the Popes had upon the other.

DAVID A. WELLS.

Norwich, Connecticut, U.S.,
December 1887.

ANALYSIS OF EVIDENCE.

MR. S. WILLIAMSON, M.P.:

Is engaged in trade with Chili and California, 5945-49.

Increased use of the gold standard has been injurious by lowering prices and interfering with exchange, 5950-58.

Explains obstructions to trade with silver-using countries, 5954-58, 5983-86, 5996-97, 6015-16; and to investments in those countries, 5954-55.

Difficulties of the situation are increased in Chili owing to the existence of inconvertible paper currency, 5957-60, 5998-6006, 6015-16.

Inducement to countries now using inconvertible paper to resume specie payments, if there were a fixed relation between gold and silver, 5960-61.

Alleged advantages arising from increased trade with silver-using countries have been exaggerated, 5962-65, 5979-81, 6017-24.

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GOLD AND SILVER COMMISSION.

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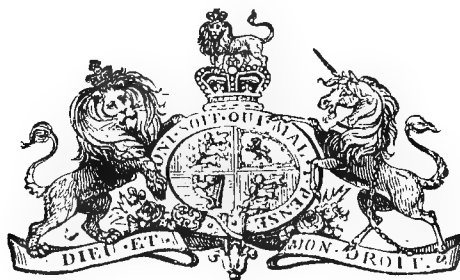
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